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THE DOCTRINES
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PRINCIPAL LECTURER IN THEORY OF EDUCATION TO THE ST. ANDREWS
PROVINCIAL COMMITTEE FOR THE TRAINING OF TEACHERS
EXAMINER IN EXPERIMENTAL EDUCATION IN THE UNIVERSITY OF EDINBURGH
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PREFACE

A HISTORY of Education should explain how educational doctrines are related to the intellectual and social tendencies of the times in which they originated, should expound these doctrines, and should indicate how they affect educational practice. This work does not profess to be a History of Education; it confines itself to an exposition of the doctrines of a limited number of representative educators. It does not deal with their lives. In one respect this is a disadvantage, in another an advantage. It is a disadvantage in so far as the lives of the authors frequently help to elucidate their doctrines; it is an advantage in so far as it enables us to avoid the *argumentum ad hominem* fallacy which is frequently exemplified in Histories of Education.

Students of Education are advised to read the texts of the authors along with the chapters on the doctrines here given. For the doctrines of educators only incidentally mentioned in these pages, or entirely omitted from them, they are referred to such a History of Education as Monroe's Text-Book. Other readers will find the chapters designed to give a general idea of the doctrines of the great educators without recourse to other works.

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CHAPTER I

PLATO

It is to Greek thought that we first turn when we wish to consider any of the problems of Ethics, Education or Politics, for in Greece we find the beginnings of Western civilisation. Greek culture cannot be derived. Oriental influences no doubt affected it, but they did not condition it, and the boast of Plato[1] was not an empty one, that "whatever Greeks receive from foreigners they in the end make more beautiful."

Greek thought has, in addition to its originality, a surprising universality, not a mere municipal fitness. The principles of Logic, Ethics and Politics which Plato and Aristotle enunciated are generally regarded as universally valid; the writings of the Greek poets are still read; the Greek tragedies are acted before modern audiences; and the surviving works of Greek art are appreciated by the untutored.

Greek thought has likewise a simplicity which enables us to image the problems involved more easily than under modern complex conditions. It is both natural and necessary, therefore, to begin our study of the doctrines of the great educators with a consideration of the Greek thinkers.

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[1] *Epinomis*, § 987.

All the succeeding quotations from Plato's writings are from Jowett's translation, and the references are to the marginal pages of that work.

At a time of intellectual unrest in Greece, about the fourth or the third century before the Christian era, a new school of teaching came into being. The enlargement of the intellectual horizon resulting from the unrest that ensued demanded a class of men who could impart quickly every kind of knowledge; and to satisfy this demand all sorts and conditions were pressed into the service of Education and classed under the general title "Sophist." "Is not a sophist one who deals wholesale or retail in the food of the soul?" it is asked in the *Protagoras*.[1] Fencing masters like Euthydemus and his brother Dionysodorus,[2] Prodicus with his stock of philological subtleties,[3] and Protagoras "the wisest of all living men,"[4] declared themselves "the only professors of moral improvement."[5]

The teaching of the Sophists was unsystematic; it was also limited to the few who could pay for it,[6] and we

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[1] § 313.

[2] Plato's testimonial to them reads as follows (*Euthydemus*, § 282): "They are capital at fighting in armour, and will teach the art to anyone who pays them; and also they are most skilful in legal warfare; they will plead themselves and teach others to speak and to compose speeches which will have an effect upon the courts. And this was only the beginning of their wisdom, but they have carried out the pancratiastic art to the very end, and have mastered the only mode of fighting which had been hitherto neglected by them; and now no one dares to look at them; such is their skill in the war of words that they can refute any proposition whether true or false."

[3] *Protagoras*, § 340. Cf. *Euthydemus*, § 277.

[4] *Protagoras*, § 309. [5] *Laches*, § 186.

[6] Protagoras was the first to accept payment (*Protagoras*, § 348): "You proclaim in the face of Hellas that you are a Sophist or teacher of virtue or education and are the first that demanded pay in return."

His method of exacting payment—a form of payment by results—was as follows (*Protagoras*, § 328): "When a man has been my pupil, if he likes he pays my price, but there is no compulsion; and if he does find Socrates, for example, saying: "As for myself, I am the first to confess that I have never had a teacher; although I have always from my earliest youth desired to have one. But I am too poor to give money to the Sophists, who are the only professors of moral improvement."[1] The fact that they accepted payment for their services created a certain prejudice against the Sophists, for this enabled those who could afford their instruction to acquire a definite superiority over their fellow-citizens. The popular attitude towards them may be inferred from the violent outburst of indignation with which Anytus received the suggestion of Socrates that Meno should go to the Sophists for his education. "The young men," says Anytus,[2] "who gave their money to them (the Sophists) were out of their minds, and their relations and guardians who entrusted them to their care were still more out of their minds, and most of all the cities who allowed them to come in and did not drive them out, citizen or stranger alike . . . Neither I nor any of my belongings has ever had, nor would I suffer them to have, anything to do with them."

The prejudice against the Sophists was intensified by the fact that they degraded knowledge by making its aim direct utility. Education was with the Greeks a training for leisure, not for a livelihood. In the *Protagoras*,[3] for example, it is asked: "Why may you not learn of him in the same way that you learned the arts of the grammarian or musician or trainer, not with the view of making any of

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not like, he has only to go into a temple and take an oath of the value of the instructions, and he pays no more than he declares to be their value."

The result was, as reported by Socrates in the *Meno*, § 91: "I know of a single man, Protagoras, who made more out of his craft than the illustrious Pheidias, who created such noble works, or any ten other statuaries."

[1] *Laches*, § 186.

[2] *Meno*, § 92.

[3] § 312.

them a profession, but only as a part of education and because a private gentleman ought to know them ?"

Socrates recognised the unscientific nature of the methods of the Sophists, and his own method, although superficially resembling theirs, was essentially systematic and founded on general principles. "There are," according to Aristotle,[1] "two things which we may fairly attribute to Socrates, his inductive discourses and his universal definitions." Inductive reasoning was his method of arriving at a definition. The result attained by his method could not in many instances be regarded as satisfying the requirements of scientific exactness, but this did not disturb Socrates, for he himself continually and emphatically disclaimed the possession of any knowledge, except perhaps the knowledge of his own limitations. "He knows nothing," the intoxicated Alcibiades says of him in the *Symposium*,[2] "and is ignorant of all things—such is the appearance which he puts on." Although not possessing knowledge himself, Socrates claimed to have the gift of discerning its presence in others, and of having the power to assist them to bring it to light.[3]

His first task was to arouse men from that false self-satisfaction which was by him believed to be the cause of their misery, and to lead them to self-examination and self-criticism. "Herein," he says,[4] "is the evil of ignorance, that he who is neither good nor wise is nevertheless satisfied with himself: he has no desire for that of which he feels no want." The mission which Socrates conceived himself as charged to fulfil was to make men feel this want, to teach others what the utterance of the Delphic oracle had taught him—his own ignorance; to imbue them with a divine discontent; to make them feel, as Alcibiades puts it,[1] "the serpent's sting," "the pang of philosophy." And in his defence Socrates neither disowned his mission nor his method: I am that gadfly," he tells his judges,[2] "which God has attached to the state, and all day long and in all places am always fastening upon you, arousing and persuading and reproaching you."

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[1] *Metaphysics*, § 1078, b.

[2] § 216.

[3] Cf. metaphor of midwife in *Theaetetus*, § 150; also *Symposium*, § 209.

[4] *Symposium*, § 204.

A characteristic of the method of Socrates was the necessity for having a companion in the pursuit of truth. Anyone sufficed for this purpose, and Socrates had many devices for luring men into this search, though not infrequently they were unwilling companions who soon discovered that for the lookers on "there is amusement in it."[3] In the *Protagoras* Socrates is represented as saying: "When anyone apprehends alone, he immediately goes about and searches for some one to whom he may communicate it and with whom he may establish it."[4] The principle implied is that if one other can be convinced, then all others can likewise be persuaded, and consequently the belief in question is universally valid. Carlyle expresses the same idea when he cites the statement: "It is certain my conviction gains infinitely, the moment another soul will believe in it." The dialogue is thus a necessary and essential feature of the method of Socrates.

In the Socratic discourses three stages can generally be distinguished; first, the stage called by Plato "opinion," in which the individual is unable to give valid reasons for his knowledge or supposed knowledge; second, the destructive or analytic stage, in which the individual is brought to realise that he does not know what he assumed he knew, and which leads to contradiction and a mental condition of doubt or perplexity; third, a synthetic stage for the results of which Plato would reserve the term "knowledge." When this last stage is attained, the individual's experience is critically reconstructed and he can justify his beliefs by giving the reasons for them.[1]

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[1] *Symposium*, § 217.

[2] *Apology*, § 31.

[3] *Apology*, § 33.

[4] § 348.

The possibility of applying a method similar to that of Socrates in the teaching of school pupils has frequently been questioned and sometimes even denied. Pestalozzi is probably the most vigorous opponent of what he terms "Socratizing." In one passage[2] he says: "Socratizing is essentially impossible for children, since they want both a background of preliminary knowledge and the outward means of expression—language." If, however, the teacher adequately recognises the limits of his pupils' experience and adapts his terminology to their vocabulary, the method can be applied quite successfully.[3]

Education was a subject to which Plato attached the greatest importance. In the *Republic*[4] he reckons it with war, the conduct of campaigns, and the administration of states as amongst "the grandest and most beautiful" subjects, and in the *Laws*[5] he repeats that it is "the first and fairest thing that the best of men can ever have." In the *Laches*,[6] which is professedly a treatise on Education, he asks: "Is this a slight thing about which you and Lysimachus are deliberating? Are you not risking the greatest of your possessions? For children are your riches;

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[1] Cf. *Theaetetus*, § 201: "Knowledge is true opinion accompanied by a reason."

[2] *Leonard and Gertrude*, Eng. trans., p. 46. Cf. p. 57.

[3] Cf. for successful examples of method, Adams's *Primer of Teaching*, pp. 101-8; also *Exposition and Illustration*, pp. 80-2.

[4] § 599. [5] § 644. [6] § 185.

and upon their turning out well or ill depends the whole order of their father's house." Again in the *Crito*[1] he says: "No man should bring children into the world who is unwilling to persevere to the end in their nurture and education." The extent and elaborateness of the treatment of Education in the *Republic* and in the *Laws* likewise testify to the importance of the subject in Plato's mind.

The difficulties which arose from the educational methods of the Sophists deeply perplexed Plato. His early dialogues everywhere bear the mark of this perplexity, a perplexity which, it seems, was common to the foremost minds of Greece at that time. The *Laches* records the concern of Lysimachus and Melesius as to the education of their children and their eagerness to accept guidance from any quarter; the *Euthydemus* ends with an appeal to Socrates by Crito concerning the education of Critobulus his son.

The type of education which was then current in Greece we can gather from several references in the dialogues. In the *Crito*[2] it is asked: "Were not the laws which have the charge of education right in commanding your father to train you in Music and Gymnastic?" and the answer of Socrates is: "Right, I should reply." In the *Protagoras*[3] it is stated: "I am of opinion that skill in poetry was the principal part in education and this I conceive to be the power of knowing what compositions of the poets are correct, and what are not, and how they are to be distinguished and of explaining, when asked, the reason of the difference." In the *Timaeus*[4] there is a reference which gives us an interesting side-light on ancient Greek education. Critias there says: "Now the day was that day of the Apaturia which is called the registration of youth, at which, according to custom, our parents gave prizes for recitations, and the poems of several poets were recited by us boys, and many of us sang the poems of Solon, which at that time had not gone out of fashion."

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[1] § 45. [2] § 50. [3] § 339. [4] § 21.

The best account, however, of the education of a Greek youth is the sketch given in the *Protagoras*:[1] "Education and admonition commence in the first years of childhood, and last to the very end of life. Mother and nurse and father and tutor are quarrelling about the improvement of the child as soon as ever he is able to understand them; he cannot say or do anything without their setting forth to him that this is just and that is unjust; this is honourable, that is dishonourable; this is holy, that is unholy; do this and abstain from that. And if he obeys, well and good; if not, he is straightened by threats and blows, like a piece of warped wood. At a later stage they send him to teachers, and enjoin them to see to his manners even more than to his reading and music; and the teachers do as they are desired. And when the boy has learned his letters and is beginning to understand what is written, as before he understood only what was spoken, they put into his hands the works of great poets, which he reads at school; in these are contained many admonitions, and many tales and praises, and encomia of ancient famous men, which he is required to learn by heart, in order that he may imitate or emulate them and desire to become like them. Then, again, the teachers of the lyre take similar care that their young disciple is temperate and gets into no mischief; and when they have taught him the use of the lyre, they introduce him to the poems of other excellent poets, who are the lyric poets; and these they set to music, and make their harmonies and rhythms quite familiar to the children's souls, in order that they may learn to be more gentle and harmonious, and rhythmical, and so more fitted for speech and action; for the life of man in every part has need of harmony and rhythm. Then they send them to the master of gymnastic, in order that their bodies may better minister to the virtuous mind, and that they may not be compelled through bodily weakness to play the coward in war or any other occasion. This is what is done by those who have the means, and those who have the means are the rich; their children begin education soonest and leave off latest. When they have done with masters, the state again compels them to learn the laws, and live after the pattern which they furnish, and not after their own fancies; and just as in learning to write, the writing-master first draws lines with a style for the use of the young beginner, and gives him the tablet and makes him follow the lines, so the city draws the laws, which were the invention of good lawgivers who were of old time; these are given to a young man, in order to guide him in his conduct whether as ruler or ruled; and he who transgresses them is to be corrected, or, in other words, called to account, which is a term used not only in your country, but also in many others."

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[1] §§ 325-6.

It is in the *Republic*, however, that Plato's chief treatment of the subject is to be found. Rousseau has said:[1] "If you wish to know what is meant by public education, read Plato's *Republic*. Those who merely judge books by their titles take this for a treatise on Politics, but it is the finest treatise on Education ever written." Edward Caird has likewise affirmed of the *Republic* that "perhaps it might best be described as a treatise on Education, regarded as the one great business of life from the beginning to the end of it."[2]

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[1] *Emile*, Eng. trans., Everyman ed., p. 8.

[2] *Evolution of Theology in the Greek Philosophers*, i, p. 140.

The *Republic* is professedly an inquiry into the nature of justice. But justice is essentially a social virtue;[1] consequently to determine the nature of justice Plato is driven to construct in thought an ideal state wherein he hopes to find justice "writ large."[2]

Because of the multiplicity of human wants and of the insufficiency of any one individual to satisfy these by his own efforts, the state, in Plato's view,[3] is necessary. It is likewise advantageous, since by reason of the diversity in the natural endowment of the individuals constituting the state the greatest efficiency can only be attained by the application of the principle of the division of labour and by co-operative effort.[4] These two principles are implied in the oft-quoted statement of Aristotle:[5] "The state comes into existence originating in the bare needs of life, and continuing in existence for the sake of a good life."

The application of the principle of the division of labour results in the separation of the citizens of the state into two classes—the industrial or artisan and the guardian class, the duty of the former being to provide the necessaries of life,[6] the duty of the latter being to enlarge the boundaries of the state[7]—a proceeding which involves war—that luxuries may be available for the citizens and the state be something more than "a community of swine."[1] The guardian class Plato further subdivides into the military and governing classes, representing respectively the executive and deliberative functions of government.

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[1] Cf. Aristotle, *Politics*, bk. iii, ch. 13: "Justice has been acknowledged by us to be a social virtue."

[2] Cf. Rousseau, *Emile*, p. 202: "It is true . . . that we have a very imperfect knowledge of the human heart if we do not also examine it in crowds; but it is none the less true that to judge of men we must study the individual man, and that he who had a perfect knowledge of the inclinations of each individual might foresee all their combined effects in the body of the nation."

[3] *Republic*, § 369.

[4] Note that Plato presupposes an initial inequality. Cf. Aristotle, *Politics*, bk. ii: "Similars do not constitute a state."

[5] *Politics*, bk. i, ch. 2.

[6] *Republic*, §§ 369-372.

[7] § 373.

After the division of the citizens into the three classes—the industrial, the military, and the ruling—has been established, the state assumes the nature of a permanent structure, and this has caused Plato's constitution to be designated "a system of caste."[2] To give sanction to the divisions in the state thus constituted Plato would bring into play "a seasonable falsehood," and the myth which he suggests is as follows: he would tell the people[3]—"You are brothers, yet God has framed you differently. Some of you have the power of command, and in the composition of these he has mingled gold, wherefore also they have the greatest honour; others he has made of silver, to be auxiliaries; others again who are to be husbandmen and craftsmen he has composed of brass and iron." The barriers between the classes are not, however, absolute, nor is the hereditary principle in legislation regarded as infallible, for Plato immediately adds: "But as all are of the same original stock, a golden parent will sometimes have a silver son, or a silver parent a golden son. And God proclaims as a first principle to the rulers, and above all else, that there is nothing which they should so anxiously guard, or of which they are to be such good guardians, as of the purity of the race. They should observe what elements mingle in their offspring; for if the son of a golden or silver parent has an admixture of brass and iron, then nature orders a transposition of ranks, and the eye of the ruler must not be pitiful towards the child because he has to descend in the scale and become a husbandman or artisan, just as there may be sons of artisans who having an admixture of gold or silver in them are raised to honour, and become guardians or auxiliaries. For an oracle says that when a man of brass or iron guards the state, it will be destroyed."[1]

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[1] § 372. [2] Lewis Campbell, *Plato's Republic*, p. 54. [3] § 415.

For each of the three classes of the community—the producing, the military, and the governing—Plato ought to have provided, we should imagine, an appropriate form of training; but although the education of the soldier and that of the ruler or philosopher are treated at considerable length, no mention is made in the *Republic* of the education of the industrial class.[2] The education of the members of this class, had Plato dealt with it, would doubtless have been of a strictly vocational nature, not however a state scheme of vocational training but something resembling rather "the constitution of apprenticeship as it once existed in Modern Europe."[3] There would be no specific training in citizenship, for these members of the community have no voice in the government of the state; their characteristic virtue is obedience, technically "temperance,"—to know their place and to keep it.[4]

The fact that this large element in the community is denied the benefits and privileges of citizenship, the communistic scheme being confined to the guardian class, must be regarded as a serious defect in Plato's ideal state. It has been attributed to Plato's aristocratic prejudices, and to the Greek contempt for the mechanical arts.[5]

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[1] *Republic*, § 423.

[2] Cf. Aristotle, *Politics*, ii, 5, 23: "What will be the education, form of government, laws of the lower class Socrates has nowhere determined."

[3] Lewis Campbell, *Plato's Republic*, p. 65.

[4] Compare for a modern ideal of the education of this class the works of Kerschensteiner.

[5] Lewis Campbell, *Plato's Republic*, p. 54.

Aristotle regards the artisans as of even less account than the slaves, and maintains[1] that they can only attain excellence as they become slaves, that is, come under the direction of a master. If, however, a state is to be safe, or be "a unity," as Plato phrased it, all must share in the government.[2] Contrasting the Greek with the modern ideal of virtue, T. H. Green says:[3] "It is not the sense of duty to a neighbour, but the practical answer to the question Who is my neighbour? that has varied." This explains the defect in Plato's scheme, and helps us to appreciate the increased difficulty of our present-day ethical, social, and educational problems.

Plato's first treatment of Education,[4] the training of the guardians including the military and ruling classes, is a general education governed mainly by the principle of imitation. Its two main divisions are the current forms of Greek education, namely Music[5] and Gymnastic, but as Plato again warns us:[6] "Neither are the two arts of Music and Gymnastic really designed, as is often supposed, the one for the training of the soul, the other for the training of the body. I believe that the teachers of both have in view chiefly the improvement of the soul."

Remembering this, and likewise mindful of Plato's general idealistic position, we are not surprised when at the outset of his treatment of Education he asserts that we should begin education with Music and go on to Gymnastic afterwards;[1] mental is thus to precede physical education. The mothers and nurses are to tell their children the authorised tales only: "Let them fashion the mind with such tales, even more fondly than they mould the body with their hands."

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[1] *Politics*, i, 3.

[2] Cf. *Protagoras*, § 322: "For cities cannot exist, if a few only share in the virtues as in the arts." Also Aristotle, *Politics*, iii, 15, and ii, c.

[3] *Prolegomena to Ethics*, § 207.

[4] *Republic*, §§ 376-412.

[5] Aesthetic education. Almost equivalent to the term Arts in "Master of Arts."

[6] *Republic*, § 410. Cf. passage from *Protagoras* quoted above.

Education for Plato cannot begin too early; he recognises the importance of first impressions. "The beginning," he says,[2] "is the most important part of any work, especially in the case of a young and tender thing." Consequently consideration of the tales to be told to infants he does not assume to be beneath the dignity of a philosopher.[3]

Music includes narratives, and these are of two kinds, the true and the false.[4] Somewhat paradoxically Plato maintains that the young should be trained in both, and that we should begin with the false; fables, he implies, are best suited to the child mind. He thus recognises the truth of art as well as the truth of fact. But not all fables should, according to Plato,[5] be taught, "for a young person cannot judge what is allegorical and what is literal; anything that he receives into his mind at that age is likely to become indelible and unalterable; and therefore it is most important that the tales which the young first hear should be models of virtuous thoughts."

Here we have formulated Plato's guiding principle—that nothing must be admitted in education which does not conduce to the promotion of virtue. For "true and false" he substitutes the standard "good and evil." Plato declines to take upon himself the task of composing fables suitable for children, but using as a criterion the principle just enunciated, he assumes a moral censorship over the tales then current. "The narrative of Hephaestus binding Here his mother, and how on another occasion Zeus sent him flying for taking her part when she was being beaten, and all the battles of the gods in Homer—these tales must not be admitted into our state, whether they are supposed to have an allegorical meaning or not." [1]

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[1] § 376: Compare and contrast Aristotle, *Politics*, vii, 15. "The care of the body ought to precede that of the soul, and the training of the appetitive part should follow: none the less the care of it must be for the sake of the reason, and our care of the body for the sake of the soul."

[2] § 377. [3] Cf. Aristotle, *Politics*, vii, 17, 5. [4] *Republic*, § 376. [5] § 378.

Plato proceeds to pass in review the stories about the Gods and formulates the following theological canons: (1) "God is not the author of all things, but of good only"—and the poet is not to be permitted to say that those who are punished are miserable and that God is the author of their misery.[2] (2) "The Gods are not magicians who transform themselves, neither do they deceive mankind in any way."[3] The tales to be told to children must conform to these principles, and others are not to be told to the children from their youth upwards, if they are to honour the gods and their parents, and to value friendship.[4]

After having considered the fables dealing with the gods, Plato proceeds to consider those relating to heroes and the souls of the departed. To make the citizens free men who should fear slavery more than death, the other world must not be reviled in fables but rather commended. All weepings and wailings of heroes must be expunged from fables; likewise all descriptions of violent laughter, for a fit of laughter which has been indulged to excess almost always produces a violent reaction.[5]

In the tales to be recited to children a high value is to be set upon truth; "if anyone at all is to have the privilege of lying, the rulers of the state should be the persons; and they, in their dealings either with their enemies or with their own citizens, may be allowed to lie for the public good. But nobody else should meddle with anything of the kind."[1] Temperance, implying obedience to commanders and self-control in sensual pleasures, is to be commended, while covetousness is to be condemned. The fables concerning heroes and others must accordingly be amended to agree with these principles.

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[1] § 378.

[2] § 380.

[3] § 383.

[4] § 386.

[5] §§ 386-8.

The use is likewise to be forbidden of such language as implies that wicked men are often happy, and the good miserable; and that injustice is profitable when undetected, justice being a man's own loss and another's gain.[2]

Having thus discussed the matter of the narratives to be used in education, Plato addresses himself to a consideration of their form.[3] In compositions he distinguishes between direct speech, which he calls "imitation," and indirect speech, which he calls "simple narration." "Imitation" is only to be allowed of the speech and action of the virtuous man: the speeches of others are to be delivered and their actions described in the form of narration. The reason Plato gives is that "imitation beginning in early youth and continuing far into life, at length grows into habits and becomes a second nature, affecting body, voice, and mind."[4]

In respect to music in its limited and modern sense, Plato maintains that all harmonies which are effeminate and convivial are to be discarded and only such retained as will make the citizens temperate and courageous. The rhythm is to be determined by the nature of the words, just as the style of words is determined by the moral disposition of the soul.

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[1] § 389. Cf. the international morality in More's *Utopia*.

[2] § 392. [3] §§ 392-403. [4] § 395.

So must it be with the other arts and crafts, and not only the poets, but the professors of every other craft as well, must impress on their productions the image of the good.[1] Here we have the origin of the old quarrel between poetry and philosophy, or between art and morality. Plato will not entertain the idea of "art for art's sake"; the only criterion he will recognise is the ethical.

The reason of Plato's solicitude for a good and simple environment for the children who are to be the future guardians of the state is his belief in the efficacy of unconscious assimilation or imitation in the formation of character. As evidence of this we may cite the following:[2] "We would not have our guardians grow up amid images of moral deformity, as in some noxious pasture, and there browse and feed upon many a baneful herb and flower day by day, little by little, until they silently gather a festering mass of corruption in their own soul. Let our artists rather be those who are gifted to discern the true nature of the beautiful and graceful; then will our youth dwell in a land of health, amid fair sights and sounds, and receive the good in everything; and beauty, the effluence of fair works, shall flow into the eye and ear, like a health-giving breeze from a purer region, and insensibly draw the soul from earliest years into likeness and sympathy with the beauty of reason."

"And therefore," Plato continues, "musical training is a more potent instrument than any other, because rhythm and harmony find their way into the inward places of the soul, on which they mightily fasten, imparting grace, and making the soul of him who is rightly educated graceful, or of him who is ill-educated ungraceful." That the result of a musical education should be the production of harmony and grace in the individual is repeated in the introduction to Plato's treatment of higher education or the education of the philosopher. There,[1] he says, "music was the counterpart of gymnastic, and trained the guardians by the influences of habit, by harmony making them harmonious, by rhythm rhythmical." The end throughout was the Greek ideal of manhood, a life which in itself was a work of art.

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[1] § 401.

[2] § 401. Cf. Aristotle, *Politics*, bk. vii, ch. 17: "All that is mean and low should be banished from their sight." Also Bosanquet, *The Education of the Young in the Republic of Plato*, p. 102, footnote.

Plato's treatment of Gymnastic in the *Republic* is decidedly brief; [2] he contents himself with indicating no more than the general principles. "Gymnastic as well as music should begin in early years; the training in it should be careful and should continue through life," he says, adding, however, "Now my belief is, not that the good body by any bodily excellence improves the soul, but, on the contrary, that the good soul, by her own excellence, improves the body as far as this may be possible."

Plato prescribes a simple moderate system such as would be productive of health and the utmost keenness both of eye and ear.[3] Of the habit of body cultivated by professional gymnasts he disapproves as unsuitable for men who have to undergo privations in war and variations in food when on a campaign. Abstinence from delicacies is also enjoined. The whole life, however, is not to be given up to gymnastics, for anyone who does nothing else ends by becoming uncivilised,—"he is like a wild beast, all violence and fierceness, and knows no other way of dealing; and he lives in all ignorance and evil conditions, and has no sense of propriety and grace." [4]

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[1] *Republic*, § 522.
[2] §§ 403-412.
[3] § 404.
[4] § 411.

Such then is, in outline, Plato's scheme of early training with its training in Music and Gymnastic. The dances which will be in vogue, the hunting and field exercises, and the sports of the gymnasium and the race-course, he adds,[1] must correspond with the foregoing outlines.

There is one omission from this early education to which attention ought to be directed, for the omission is intentional on Plato's part; it is the absence of any reference to a training in the manual arts. The reason for the omission is incidentally disclosed by Plato in a later section of the *Republic*[2]: "All the useful arts were reckoned mean."

There are other omissions evidently unintentional. The subjects of the higher education, Plato later recognises, must be begun in youth, hence in dealing with the education of the ruler or philosopher we find him stating:[3] "Calculation and geometry and all the other elements of instruction, which are a preparation for dialectic, should be presented to the mind in childhood; not, however, under any notion of forcing our system of education."

The principle of teaching-method here implied he elaborates by adding: "Bodily exercise, when compulsory, does no harm to the body; but knowledge which is acquired under compulsion obtains no hold on the mind . . . Then do not use compulsion, but let early education be a sort of amusement; you will then be better able to find out the natural bent." In the *Laws* the positive significance of play in education is emphasised. Thus, as has frequently been pointed out, we do not have to come to modern times, to Herbart, Froebel, or Montessori to find the child's interest or his play taken as a guiding principle in education: it is found formulated in Plato.

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[1] § 412. [2] § 522. [3] § 536.

Those who are to undergo the early education and become guardians of the state are to unite in themselves "philosophy and spirit and swiftness and strength."[1] Throughout their education they are to be watched carefully and tested and tempted in various ways;[2] and those who, after being proved, come forth victorious and pure are to be appointed rulers and guardians of the state, the others remaining auxiliaries or soldiers.

The qualities required for the higher education[3] or for the philosophic character Plato frequently enumerates. Preference is to be given to "the surest and the bravest, and, if possible, to the fairest; and, having noble and generous tempers, they should also have the natural gifts which will facilitate their education."[4] Another account runs:[5] "A good memory and quick to learn, noble, gracious, the friend of truth, justice, courage, temperance"; again,[6] "Courage, magnificence, apprehension, memory."

The aim of the higher education is not a mere extension of knowledge; it is, in Plato's phrase,[7] "the conversion of a soul from study of the sensible world to contemplation of real existence." "Then, if I am right," he explains,[8] "certain professors of education must be wrong when they say that they can put a knowledge into the soul which was not there before, like sight into blind eyes. Whereas, our argument shows that the power and capacity of learning exist in the soul already; and that just as the eye was unable to turn from darkness to light without the whole body, so too the instrument of knowledge can only by the movement of the whole soul be turned from the world of becoming into that of being, and learn by degrees to endure the sight of being, and of the brightest and best of being, or in other words, of the good."

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[1] *Republic*, § 376.

[2] § 413. Not quite "an education through perfect circumstances," as Lewis Campbell supposed, *Plato's Republic*, p. 73.

[3] §§ 521-541.

[4] § 535.

[5] § 487.

[6] § 490.

[7] § 521.

[8] § 518.

Such is the aim of the higher education, the education of the philosopher or ruler. Plato, having determined the aim, next proceeds to consider the scope of higher education. It includes Number or Arithmetic, Plane and Solid Geometry, Astronomy, Theory of Music or Harmonics, all preparatory to the highest of the sciences, namely, Dialectic. "Through Mathematics to Metaphysics" might be said to sum up Plato's scheme of higher education.

The principles that decide the selection of the studies of the higher education are that they must lead to reflection rather than deal with the things of sense;[1] they must likewise be of universal application.[2] The first subject that satisfies these requirements is Number, hence Plato concludes:[3] "This is a kind of knowledge which legislation may fitly prescribe; and we must endeavour to persuade those who are to be the principal men of our state to go and learn arithmetic, not as amateurs, but they must carry on the study until they see the nature of numbers with the mind only; nor again, like merchants or retail-traders, with a view to buying or selling, but for the sake of their military use, and of the soul herself; and because this will be the easiest way for her to pass from becoming to truth and being." The main function of Number is thus to afford a training in abstraction.

The value which Plato assigns to Number as a subject in the training preparatory to Philosophy strikes the modern mind as somewhat exaggerated. This can be explained, however, by the fact that philosophers had then only begun the search for universal or conceptual notions, and the science of numbers presented itself as satisfying their requirements in a remarkable degree. The Pythagoreans had indeed maintained that Number was the rational principle or essence of things, and it is generally agreed that Plato was for some time under Pythagorean influences; in fact, by some it is maintained that by "Ideas" he understood at one stage in the development of that doctrine nothing other than numbers themselves. At the time of writing the *Republic*, however, he had outgrown the naive identification of numbers with things themselves, for we find him asserting:[1] "Yet anybody who has the least acquaintance with geometry will not deny that such a conception of the science is in flat contradiction to the ordinary language of geometricians. They have in view practice only, and are always speaking, in a narrow and ridiculous manner, of squaring and extending and applying and the like—they confuse the necessities of geometry with those of daily life; whereas knowledge is the real object of the whole science." If the Greeks, as is implied in Plato's statement, were at times in danger of ignoring the purely conceptual nature of number, we of the present day are in danger of disregarding the practical needs which brought the science into existence and the concrete bases in which numbers were first exemplified.

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[1] § 523. [2] § 522. [3] § 525.

In insisting on the value of Number as a means of training in abstraction Plato gives expression to a statement which implies the doctrine of formal discipline or transfer of training, that is, that a training in one function results in a general improvement of the mind, which in turn favourably influences other functions. Thus he asks: "Have you further observed, that those who have a natural talent for calculation are generally quick at every other kind of knowledge; and even the dull, if they have had an arithmetical training, although they may derive no other advantage from it, always become much quicker than they would otherwise have been?"[1] When in the same section he adds: "and indeed, you will not easily find a more difficult subject, and not many as difficult," he approximates to the doctrine that the more trouble a subject causes the better training it affords, the fallacy of which is evident in its enunciation by a modern paradoxical philosopher, namely, it matters not what you teach a pupil provided he does not want to learn it.

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[1] § 527.

In dealing with Geometry[2] Plato also remarks that "in all departments of knowledge, as experience proves, any one who has studied geometry is infinitely quicker of apprehension than one who has not."

These views must nevertheless be qualified by the statement[3] occurring in the discussion of the relation between Mathematics and Dialectic. "For you surely would not regard the skilled mathematician as a dialectician? Assuredly not, he said; I have hardly ever known a mathematician who was capable of reasoning." This qualification, it has been contended,[4] acquits Plato of the responsibility of initiating the doctrine of formal training, but if it does so, it is only at the cost of consistency. In his defence, however, it may be said, that in Plato's day little was known of, although much was hoped from, the science of Number; and no objection could have been urged against him had he said that a knowledge of Number "broadened" rather than "quickened" the mind. Number, like language, affords us an invaluable means of mastering and controlling experience, and does not require to be defended on the ground of some hypothetical influence on the mind in general.

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[1] § 526. This argument is repeated in almost identical terms in the *Laws*, § 747: "Arithmetic stirs up him who is by nature sleepy and dull, and makes him quick to learn, retentive, shrewd, and aided by art divine he makes progress quite beyond his natural powers."

[2] *Republic*, § 527.

[3] § 531.

[4] E. C. Moore, *What is Education?* ch. iii. It must be put to Plato's credit that in interpreting a faculty as a function (§ 477) he avoided the "faculty" doctrine which long retarded the development of psychology.

As Number is the first subject selected for inclusion in the curriculum of the higher education, so Geometry is the second. Its bearing on strategy is acknowledged, but what Plato is concerned about is whether it tends in any degree to make more easy the vision of the idea of good.[1] This, he believes, Geometry does accomplish; "geometry will draw the soul towards truth, and create the spirit of philosophy,"[2] consequently those who are to be the rulers of the ideal state must be directed to apply themselves to the study of geometry.

The study of Solid Geometry, or the investigation of space of three dimensions, should, Plato admits,[3] logically follow plane geometry and in turn precede astronomy, or the study of solid bodies in motion, but the unsatisfactory condition of the subject at the time causes him to dismiss it briefly.

Astronomy is the next of the instrumental subjects of the higher training, and in enumerating its practical advantages to the agriculturist and navigator Plato remarks:[4] "I am amused at your fear of the world, which makes you guard against the appearance of insisting upon useless studies ; and I quite admit the difficulty of believing that in every man there is an eye of the soul which, when by other pursuits lost and dimmed, is by these purified and re-illumined ; and is more precious far than ten thousand bodily eyes, for by it alone is truth seen." "Then in astronomy, as in geometry, we should employ problems, and let the heavens alone if we would approach the subject in the right way and so make the natural gift of reason to be of any real use." [1]

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[1] § 526. The idea of good, or "the Form of the Good," is the ultimate principle in Plato's philosophy, at once the source of all Being and of all knowledge. Cf. § 509.

[2] § 527.

[3] § 528.

[4] § 527.

The last of the studies preparatory to Dialectic is Music, not, however, music as an art as dealt with in the early education, but the theory of music, harmonics, the mathematical relations existing between notes, chords, etc., or what we should now probably term the physical bases of music,—"a thing," Plato affirms,[2] "which I would call useful ; that is, if sought after with a view to the beautiful and good ; but if pursued in any other spirit, useless."

If a common basis for the mathematical studies just enumerated could be discovered, Plato believes that it would advance the end in view, namely, preparation for the science of Dialectic.

Dialectic is, for Plato, the highest study of all. It is as far removed from the mathematical sciences as they are from the practical arts. The sciences assume certain hypotheses, or make certain assumptions ; geometry, for example, assumes the existence of space and does not inquire whether it is a perceptual datum, a conceptual construction, or, as Kant maintained, an *a priori* percept.

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[1] § 530. In accordance with this principle the calculation of Neptune into existence by Adams and Leverrier would have been commended by Plato ; the verification of its existence by actual observation would have merited his contempt.

[2] § 531.

Philosophy, or Dialectic as Plato calls it, tries to proceed without presuppositions or, at least, seeks critically to examine their validity and to determine the extent of their application.

"I must remind you," says Plato,[1] "that the power of dialectic can alone reveal this (absolute truth), and only to one who is a disciple of the previous sciences." "And assuredly," he continues, "no one will argue that there is any other method of comprehending by any regular process all true existence or of ascertaining what each thing is in its own nature; for the arts in general are concerned with the desires and opinions of men, or are cultivated with a view to production and construction, or for the preservation of such productions and constructions; and as to the mathematical sciences which, as we were saying, have some apprehension of true being—geometry and the like—they only dream about being, but never can they behold the waking reality so long as they leave the hypotheses which they use unexamined, and are unable to give an account of them. For when a man knows not his own first principle, and when the conclusion and intermediate steps are also constructed out of he knows not what, how can he imagine that such a fabric of convention can ever become science?"

"Then dialectic, and dialectic alone, goes directly to the first principle and is the only science which does away with hypotheses in order to make her ground secure; the eye of the soul, which is literally buried in an outlandish slough, is by her gentle aid lifted upwards; and she uses as handmaids and helpers in the work of conversion, the sciences which we have been discussing."

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[1] § 533. In the *Cratylus* Plato defined the dialectician as "he who knows how to ask questions and how to answer them." In the *Phaedrus* he identifies dialectic with the process of division and generalisation, adding "And if I find any man who is able to see 'a One and Many' in nature, him I follow and walk in his footsteps as if he were a god. And those who have this art I have hitherto been in the habit of calling dialecticians; but God knows whether the name is right or not."

Dialectic then is the coping-stone of the sciences;[1] no other science can be placed higher; it completes the series. All who would be magistrates in the ideal state must consequently address themselves to such studies as will enable them to use the weapons of the dialectician most scientifically.

Having determined the subjects which the philosopher or ruler must study, Plato proceeds to consider the distribution of these studies.[2] For three years after the completion of the early education, that is, from seventeen to twenty years of age, the youths are to serve as cadets, being brought into the field of battle, and, "like young hounds, have a taste of blood given them."

During these years of bodily exercises there is to be no intellectual study, "for sleep and exercise are unpropitious to learning."

At the age of twenty the choice characters are to be selected to undergo the mathematical training preparatory to Dialectic. This training is to continue for ten years, and at the age of thirty a further selection is to be made, and those who are chosen are to begin the study of Dialectic. Plato deliberately withholds the study of Dialectic to this late age, giving as his reason that "youngsters, when they first get the taste in their mouths, argue for amusement, and are always contradicting and refuting others in imitation of those who refute them; like puppy-dogs, they rejoice in pulling and tearing at all who come near them."[3]

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[1] § 534.

[2] §§ 537-541.

[3] § 539. Cf. Aristotle, *Ethics*, i, 3: "The young man is not a fit student of Politics."

This study is to be prosecuted for five years, every other pursuit being resigned for it. For the next fifteen years, that is, from thirty-five to fifty years of age, the philosophers or rulers are to return to practical life, take the command in war and hold such offices of state as befit "young men." After the age of fifty the lives of the rulers are to be spent in contemplation of "the Good," so that when they are called upon to regulate the affairs of the state, their knowledge of this will serve as a pattern according to which they are to order the state and the lives of individuals, and the remainder of their own lives also; "making philosophy their chief pursuit, but when their turn comes, toiling also at politics and ruling for the public good, not as though they were performing some heroic action, but simply as a matter of duty; and when they have brought up in each generation others like themselves, they will depart to the Islands of the Blest and dwell there."[1]

Such is Plato's scheme of education as set forth in the *Republic*, and he warns us in conclusion that it is an education for women as well as for men; they are to have the same training and education, a training in music and gymnastic, and in the art of war, which they must practise like men, "for you must not suppose," he adds,[2] "that what I have been saying applies to men only and not to women as far as their natures can go."

Plato dismisses as irrelevant the ridicule which would be excited by his proposal that women should share with men the exercises of the gymnasia, maintaining that the question should be decided on principle. The principle, he argues, which applies in this case is that each member of the state should undertake the work for which he is best fitted by nature, and while admitting that physically the woman is weaker than the man, he nevertheless maintains that in respect to political or governing ability the woman is the equal of the man. Had he affirmed that in respect to intellectual ability the woman is *on the average* the equal of the man, he would have anticipated the conclusions of modern science.[1]

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[1] § 540. [2] § 540. Cf. §§ 451-457.

His coeducational proposal arouses distrust, not so much on its own account but because the second "wave," the community of wives and children, results from it.[2] To secure and preserve the unity of the state Plato was forced to destroy the family as the social unit; the family with its bonds of kinship and ties of natural affection was the only institution which he feared might challenge the supremacy, or lead to the disruption, of the state, and the pains he displays to eliminate every trace of family influence are witness of its power. Plato can only secure the unity of the state at the cost of sacrificing all differences; he makes a wilderness and calls it peace. This is the great defect of his ideal state, and on this ground his communistic scheme has been effectively criticised by Aristotle.[3] A similar criticism has been applied by Rousseau,[4] who says: "I am quite aware that Plato, in the *Republic*, assigns the same gymnastics to women and men. Having got rid of the family, there is no place for women in his system of government, so he is forced to turn them into men. That great genius has worked out his plans in detail and has provided for every contingency; he has even provided against a difficulty which in all likelihood no one would ever have raised; but he has not succeeded in meeting the real difficulty. I am not speaking of the alleged community of wives which has often been laid to his charge; . . . I refer to that subversion of all the tenderest of our natural feelings, which he sacrificed to an artificial sentiment which can only exist by their aid. Will the bonds of convention hold firm without some foundation in nature? Can devotion to the state exist apart from the love of those near and dear to us? Can patriotism thrive except in the soil of that miniature fatherland, the home? Is it not the good son, the good husband, the good father, who makes the good citizen?"

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[1] Cf. Thorndike, *Educational Psychology*, vol. iii, ch. ix.

[2] § 457. The great waves or paradoxes in the construction of Plato's ideal state are: (1) the community of goods and of pursuits; (2) the community of wives and children; (3) summarised in the statement—"Until kings are philosophers or philosophers are kings, cities will never cease from ill."

[3] *Politics*, ii, 3.

[4] *Emile*, Everyman trans., p. 326.

In the *Laws*, the work of his old age, Plato readdresses himself to the subject of Education. The dialogue commencing with a consideration of the laws of Minos drifts into a consideration of the perfect citizen-ruler and how to train him—into a discussion on Education, in short. Disillusioned by the experiences of life, Plato in the *Laws*, so some interpreters maintain, recants the idealistic schemes which he projected in the *Republic*: in the later work he does not, however, really abandon his earlier principles, but rather seeks to illustrate their application in practice; he describes, if not the ideal city, the pattern of which is laid up in heaven, at least "the second best," which might be realisable "under present circumstances."[1]

The treatment of Education in the *Laws* supplements that in the *Republic*, emphasising the practical aspects and thus approximating to Aristotle's treatment of Education in the *Politics*. The aim of education nevertheless remains the same, for as Plato says in the *Laws*:[2] "At

[1] *Laws*, §§ 739, 753.

[2] §§ 643-4.

present when we speak in terms of praise or blame about the bringing-up of each person, we call one man educated and another uneducated, although the uneducated man may be sometimes very well educated for the calling of a retail trader, or of a captain of a ship, and the like. For we are not speaking of education in this narrower sense, but of that other education in virtue from youth upwards, which makes a man eagerly pursue the ideal perfection of citizenship, and teaches him how rightly to rule and how to obey. This is the only education which, upon our view, deserves the name; that other sort of training, which aims at the acquisition of wealth or bodily strength, or mere cleverness apart from intelligence and justice, is mean and illiberal, and is not worthy to be called education at all. But let us not quarrel with one another about a word, provided that the proposition which has just been granted holds good: to wit, that those who are rightly educated generally become good men. Neither must we cast a slight upon education, which is the first and fairest thing that the best of men can ever have, and which, though liable to take a wrong direction, is capable of reformation, and this business of reformation is the great business of every man while he lives."

Education in the *Laws* is to be universal, not restricted as in the *Republic* to the guardian class, and is to be compulsory; "the children shall come (to the schools) not only if their parents please, but if they do not please; there shall be compulsory education, as the saying is, of all and sundry, as far as this is possible; and the pupils shall be regarded as belonging to the state rather than to their parents. My law shall apply to females as well as males; they shall both go through the same exercises."[1] To the coeducational principle and the communistic scheme on which it is based Plato frequently alludes in the *Laws*,[1] thus indicating that the proposal in the *Republic* was regarded by him as a serious one. In support of the idea that women and girls should undergo the same gymnastic and military exercises as men and boys Plato states:[2] "While they are yet girls they should have practised dancing in arms and the whole art of fighting—when grown-up women, they should apply themselves to evolutions and tactics, and the mode of grounding and taking up arms; if for no other reason, yet in case the whole military force should have to leave the city and carry on operations of war outside, that those who will have to guard the young and the rest of the city may be equal to the task; and, on the other hand, when enemies, whether barbarian or Hellenic, come from without with mighty force and make a violent assault upon them, and thus compel them to fight for the possession of the city, which is far from being an impossibility, great would be the disgrace to the state, if the women had been so miserably trained that they could not fight for their young, as birds will, against any creature however strong, and die or undergo any danger, but must instantly rush to the temples and crowd at the altars and shrines, and bring upon human nature the reproach, that of all animals man is the most cowardly!"

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[1] *Laws*, § 804. Cf. Aristotle, *Politics*, viii, 1.

The main subjects in the curriculum proposed in the *Laws* are the same as those given in the *Republic*,—for the early education Music and Gymnastic, and for the higher education Mathematics; Dialectic, the study to which the mathematical subjects were merely preparatory in the *Republic*, is alluded to only indirectly in the more practical *Laws*.

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[1] *Laws*, §§ 804-6.

[2] § 814.

Gymnastic occupies a more prominent place than it does in the *Republic*, where it was treated merely in outline. It is now divided into two branches, dancing and wrestling, and these are in turn further subdivided. "One sort of dancing imitates musical recitation, and aims at preserving dignity and freedom; the other aims as producing health, agility, and beauty in the limbs and parts of the body, giving the proper flexion and extension to each of them, a harmonious motion being diffused everywhere, and forming a suitable accompaniment to the dance."[1] In regard to wrestling, that form "of wrestling erect and keeping free the neck and hands and sides, working with energy and constancy, with a composed strength, and for the sake of health" is useful and is to be enjoined alike on masters and scholars.[2] The general aim is that of all movements wrestling is most akin to the military art, and is to be pursued for the sake of this, and not for the sake of wrestling.[3]

Plato's treatment of Music in the *Laws* follows the lines of that in the *Republic*, the old quarrel between poetry and philosophy being frequently renewed.[4] The same conclusion is reached, namely, that the compositions must impress on the minds of the young the principle "that the life which is by the Gods seemed to be the happiest is also the best."[5]

The omission in the *Republic* of any reference to the education of the industrial or artisan class is partially rectified in the *Laws*. "According to my view," Plato now says,[6] "anyone who would be good at anything must practise that thing from his youth upwards, both in sport and earnest, in its several branches: for example, he who is to be a good builder, should play at building children's houses; he who is to be a good husbandman, at tilling the ground; and those who have the care of their education should provide them when young with mimic tools. They should learn beforehand the knowledge which they will afterwards require for their art. For example, the future carpenter should learn to measure or apply the line in play; and the future warrior should learn riding, or some other exercise, for amusement, and the teacher should endeavour to direct the children's inclinations and pleasures, by the help of amusements, to their final aim in life. The most important part of education is right training in the nursery. The soul of the child in his play should be guided by the love of that sort of excellence in which when he grows up to manhood he will have to be perfected."

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[1] § 795. Cf. §§ 814-6.
[2] § 796.
[3] § 814.
[4] Cf. §§ 659-670; 800-804; 811.
[5] § 664.
[6] § 643..

As in the *Republic* so in the *Laws*, education cannot begin too early;[1] "Am I not right in maintaining that a good education is that which tends most to the improvement of mind and body? And nothing can be plainer than that the fairest bodies are those which grow up from infancy in the best and straightest manner?" The care of the child even before birth is dealt with by Plato.[2] The early discipline is to be, as with Aristotle, habituation to the good and the beautiful. "Now I mean by education that training which is given by suitable habits to the first instincts of virtue in children;—when pleasure, and friendship, and pain, and hatred are rightly implanted in souls not yet capable of understanding the nature of them, and who find them, after they have obtained reason, to be in harmony with her. This harmony of the soul, taken as a whole, is virtue; but the particular training in respect to pleasure and pain, which leads you always to hate what you ought to hate, and love what you ought to love from the beginning of life to the end, may be separated off; and, in my view, will be rightly called education."[1]

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[1] § 788.

[2] §§ 788-792.

The early training in the *Republic* comprising Music and Gymnastic was designed to occupy the first seventeen years of life. The ages at which the various parts of these subjects were to be taken up were not further particularised. In the *Laws*, however, Plato is most precise as to the occupations of the early years and the time to be allotted to each. "Up to the age of three years, whether of boy or girl, if a person strictly carries out our previous regulations and makes them a principal aim, he will do much for the advantage of the young creatures. But at three, four, five or even six years the childish nature will require sports . . . Children at that age have certain natural modes of amusement which they find out for themselves when they meet."[2]

The sports which the children at these early ages engage in, it may be interpolated, are, in Plato's opinion, of supreme significance in maintaining the stability of the state. In the *Republic*[3] Plato repeatedly expresses his fear of innovations in Music and Gymnastic lest these should imperil the whole order of society. This was natural, for any change in an ideal state could only be regarded as a change for the worse. It was also in accordance with the Greek attitude of mind, to which the modern ideal of an infinite progress brought about by constant innovations was abhorrent, and which conceived of perfection after the manner of the plastic arts as limited and permanent. In the *Laws*, even when the constitution is but "second-best," the dread of innovations still haunts Plato, and leads him to observe[4] "that the plays of children have a great deal to do with the permanence or want of permanence in legislation. For when plays are ordered with a view to children having the same plays, and amusing themselves after the same manner, and finding delight in the same playthings, the more solemn institutions of the state are allowed to remain undisturbed. Whereas if sports are disturbed, and innovations are made in them, and they constantly change, and the young never speak of their having the same likings, or the same established notions of good and bad taste, either in the bearing of their bodies or in their dress, but he who devises something new and out of the way in figures and colours and the like is held in special honour, we may say that no greater evil can happen in the state; for he who changes these sports is secretly changing the manners of the young, and making the old to be dishonoured among them and the new to be honoured. And I affirm that there is nothing which is a greater injury to all states than saying this."

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[1] § 653. [2] § 794. [3] Cf. § 424. [4] § 794.

Up to the age of six the children of both sexes may play together. After the age of six, however, they were to be separated—"let boys live with boys, and girls in like manner with girls. Now they must begin to learn—the boys going to the teachers of horsemanship and the use of the bow, the javelin, and sling, and the girls too, if they do not object, at any rate until they know how to manage these weapons, and especially how to handle heavy arms."[1]

The musical is to alternate with the gymnastic training. "A fair time for a boy of ten years old to spend in letters is three years; the age of thirteen is the proper time for him to begin to handle the lyre, and he may continue at this for another three years, neither more nor less, and whether his father or himself like or dislike the study, he is not to be allowed to spend more or less time in learning music than the law allows."[1]

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[1] § 794.

"There still remain three studies suitable for freemen. Arithmetic is one of them; the measurement of length, surface, and depth is the second; and the third has to do with the revolutions of the stars in relation to one another. Not everyone has need to toil through all these things in a strictly scientific manner, but only a few."[2] All that is required for the many is such a knowledge as "every child in Egypt is taught when he learns the alphabet," and which frees them "from that natural ignorance of all these things which is so ludicrous and disgraceful."[3] He who is to be a good ruler of the state, must, however, make a complete study of these subjects and of their inter-connections; he must know these two principles—"that the soul is the eldest of all things which are born, and is immortal and rules over all bodies; moreover, he who has not contemplated the mind of nature which is said to exist in the stars, and gone through the previous training, and seen the connection of music with these things, and harmonized them all with laws and institutions, is not able to give a reason of such things as have a reason. And he who is unable to acquire this in addition to the ordinary virtues of a citizen, can hardly be a good ruler of a whole state."[4]

While in the *Republic* education was to be in the immediate charge of the guardians of the state, in the *Laws* it is to be delegated to a Director of Education.[5] The end of education nevertheless remains the same. Education is for the good of the individual and for the safety of the state. Thus Plato reaffirms in the *Laws*:[6] "If you ask what is the good of education in general, the answer is easy—that education makes good men, and that good men act nobly, and conquer their enemies in battle, because they are good. Education certainly gives victory, although victory sometimes produces forgetfulness of education; for many have grown insolent from victory in war, and this insolence has engendered in them innumerable evils; and many a victory has been and will be suicidal to the victors; but education is never suicidal."

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[1] § 810.

[2] §§ 817-8.

[3] § 819.

[4] § 967.

[5] §§ 765-6; § 809.

[6] § 641.

CHAPTER II

QUINTILIAN

PLATO details for us the education of the philosopher, Quintilian that of the orator;[1] the former the education for speculative life, the latter for practical life. The difference is typical of the national genius of the two peoples, Greek and Roman.

This antithesis would nevertheless be rejected by Quintilian; the philosopher, he would admit, had become unpractical—and by philosopher he evidently intends the sophist[2]—but the ideal orator whose education he prescribes cannot be regarded as unspeculative or unphilosophical. Plato's philosopher was also ruler or king; Quintilian's orator is sage as well as statesman. Both described the perfect man and the training which was to produce such.

Quintilian characterises his ideal as follows[3]: "The perfect orator must be a man of integrity, the good man, otherwise he cannot pretend to that character; and we therefore not only require in him a consummate talent for speaking, but all the virtuous endowments of the mind.

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[1] Quintilian, *Institutes of the Orator*.

[2] Cf. Quintilian's reference to "the only professors of wisdom," a characterisation of the Sophists employed by Plato in the *Laches*, § 186.

[3] Bk. i, Int., § ii.

For an upright and an honest life cannot be restricted to philosophers alone; because the man who acts in a real civic capacity, who has talents for the administration of public and private concerns, who can govern cities by his counsels, maintain them by his laws, and meliorate them by his judgments, cannot, indeed, be anything but the orator . . . Let therefore the orator be as the real sage, not only perfect in morals, but also in science, and in all the requisites and powers of elocution." For brevity Quintilian would adopt[1] the definition of the orator given by Cato, "a good man skilled in the art of speaking"; with emphasis on the goodness, however, for he adds, "not only that the orator ought to be a good man; but that he cannot be an orator unless such."

Others had written of the training of an orator, but they had usually dealt with the teaching of eloquence to those whose education was otherwise completed. Quintilian says,[2] however, "for my part, being of opinion that nothing is foreign to the art of oratory . . . should the training up of an orator be committed to me, I would begin to form his studies from his infancy." By reason of this, Quintilian's *Institutes of the Orator* is something more than a treatise on rhetoric; it has become an educational classic.

No training can produce the perfect orator unless a certain standard of natural endowment is presupposed; nature as well as nurture must be taken into account. Thus Quintilian remarks:[3] "It must be acknowledged that precepts and arts are of no efficacy unless assisted by nature. The person therefore that lacks a faculty will reap as little benefit from these writings as barren soils from precepts of agriculture. There are other natural qualifications, as a clear, articulate, and audible voice; strong lungs, good health, sound constitution, and a graceful aspect; which, though indifferent, may be improved by observation and industry, but are somewhat wanting in so great a degree as to vitiate all the accomplishments of wit and study."

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[1] Bk. xii, ch. i.

[2] Bk. i, Int., § i.

[3] Bk. i, Int.

The training of the orator falls into three stages: the early home education up to seven years of age; the general "grammar" school education; and the specific training in rhetoric.

With the early home education Quintilian would take as much care and exercise as much supervision as Plato devoted to the early education of the citizens and rulers of his ideal state. Recognising, like Plato, the great part which suggestion and imitation play in the early education of the child, Quintilian demands for his future orator that his parents—not his father only—should be cultured,[1] that his nurse should have a proper accent, that the boys in whose company he is to be educated should also serve as good patterns, and that his tutors should be skilful or know their own limitations; the person who imagines himself learned when he is not really so is not to be tolerated. When such conditions do not exist, Quintilian suggests that an experienced master of language should be secured to give constant attention and instantly correct any word which is improperly pronounced in his pupil's hearing in order that he may not be suffered to contract a habit of it. And he adds:[2] "If I seem to require too much, let it be considered how hard a matter it is to form an orator."

Quintilian discusses[3] whether children under seven years of age should be made to learn, and, although he admits that little will be effected before that age, he nevertheless concludes that we should not neglect these early years, the chief reason—now regarded as invalid—being that the elements of learning depend upon memory, which most commonly is not only very ripe, but also very retentive in children.[1] He warns us, however, that great care must be taken lest the child who cannot yet love study, should come to hate it, and, after the manner of Plato, he declares that study ought to be made a diversion. The instruction at this early age is to include reading, and exercises in speech training which consist of repetition of rhymes containing difficult combinations of sounds; writing is also to be taught, the letters being graven on a plate so that the stylus may follow along the grooves therein, a procedure depending on practice in motor-adjustment and recently revived in principle by Montessori.

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[1] Typically Roman and in striking contrast to Greek sentiment.

[2] Bk. i, ch. i, § ii.

[3] § iv.

Before proceeding to consider the second stage of education, Quintilian discusses the question whether public or private tuition is the better for children. Aristotle had maintained[2] that education should be public and not private; but the early Roman education had been private, and it was only under Greek influences that schools came to be founded in Rome. Aristotle's standpoint was political, whereas that of Quintilian is practical and educational.[3]

Two objections were currently urged against public education, the first being the risk to a child's morals from his intercourse with other pupils of the same age, and the second the difficulty experienced by a tutor in giving the same attention to many as to one. Were the first objection valid, that schools are serviceable to learning but prejudicial to morals, Quintilian would rather recommend the training of a child in upright life than in eloquent speaking. But he maintains that, though schools are sometimes a nursery of vice, a parent's house may likewise be the same ;—there are many instances of innocence lost and preserved in both places—and children may rather bring the infection into schools than receive it from them. In answer to the second objection Quintilian relies on the inspiration of numbers causing a master to give of his best : " A master who has but one pupil to instruct, can never give to his words that energy, spirit, and fire, which he would if animated by a number of pupils." "I would not, however," he adds, " advise the sending of a child to a school where he is likely to be neglected ; neither ought a good master to burden himself with more pupils than he is well able to teach . . . But if crowded schools are to be avoided, it does not follow that all schools are to be equally avoided, as there is a wide difference between avoiding entirely and making a proper choice."

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[1] In his chapter on Memory, bk. xi, ch. 2, some of Quintilian's statements are surprisingly in accordance with recent experimental results.

[2] *Politics*, bk. viii, ch. 2. Cf. Burnet's *Aristotle on Education*, p. 97.

[3] Bk. i, ch. 2.

Having disposed of the objection to public education, Quintilian states the positive advantages. At home the pupil can learn only what is taught him ; but in school he can learn what is taught to others. At school he has others to emulate and to serve as patterns for imitation ; he also has the opportunities of contracting friendships. How, Quintilian asks, shall the pupil learn what we call " common sense " when he sequesters himself from society ? And for the orator who must appear in the most solemn assemblies and have the eyes of a whole state fixed upon him, public education has the special advantage of enabling the pupil early to accustom himself to face an audience.

The grammar-school training is considered by Quintilian in its two aspects, the moral and the intellectual.

He recognises that children differ in respect to moral disposition, and that training must be adapted to such differences. But he desires for his future ideal orator the lad who is stimulated by praise, who is sensible of glory, and who weeps when worsted. "Let these noble sentiments work in him; a reproach will sting him to the quick; a sense of honour will rouse his spirit; in him sloth need never be apprehended."

Children must be allowed relaxation, but, as in other particulars, there is a mean to be kept; deny them play, they hate study; allow them too much recreation, they acquire a habit of idleness. Play also discovers the bent of their temper and moral character, and Quintilian observes that the boy who is gloomy and downcast and languid and dead to the ardour of play affords no great expectations of a sprightly disposition for study.

The remarkable modernity of Quintilian's opinions is evident in his remarks on corporal punishment. "There is a thing," he says, "I quite dislike, though authorised by custom—the whipping of children. This mode of chastisement seems to me mean, servile, and a gross affront on more advanced years. If a child is of so abject a disposition as not to correct himself when reprimanded, he will be as hardened against stripes as the vilest slave. In short, if a master constantly exacts from his pupil an account of his study, there will be no occasion to have recourse to this extremity. It is his neglect that most commonly causes the scholar's punishment." Concluding, he asks, "If there be no other way of correcting a child but whipping, what shall be done, when as a grown-up youth he is under no apprehension of such punishment and must learn greater and more difficult things?"

Having stated the disciplinary measures to be observed in moral training, Quintilian proceeds to consider the intellectual training which should be provided by the "grammar school."[1] To our surprise the first question which Quintilian raises is whether the Roman youth should begin his grammar-school training with Greek or with Latin. Heine's remark that had it been necessary for the Romans to learn Latin, they would not have conquered the world, derives its force from our ignorance of Roman education, for even although the Roman youth had not to learn Latin, they had to learn Greek. It must nevertheless be recalled that Greek was then still a living language, that a knowledge of Greek was almost universal among the upper classes in Rome and that it was indeed the mother-tongue of many of the slaves in the Roman households.[2] Quintilian consequently remarks[3] that it is a matter of no great moment whether the pupil begins with Latin or Greek, but in the early education he recommended the acquirement of Greek first, because Latin being in common use would come of itself.

He would not have the boy even at the earliest stages speak only Greek, as in mediaeval schools boys were required to speak only Latin, for this he feared would affect his enunciation; consequently "the Latin must soon follow and both in a short time go together; so it will come to pass that, when we equally improve both languages, the one will not be hurtful to the other."

As Music with Plato, so Grammar with Quintilian comprises literature, especially poetry. Grammar he divides into two parts: the knowledge of correct speaking and writing, and the interpretation of poetry. For good speaking, which must be correct, clear, and elegant, reason, antiquity, authority and use are to be the guiding principles. As a practical preparation for the later training in rhetoric Quintilian proposes that the pupils should learn to relate Aesop's fables in plain form, then to paraphrase them into more elegant style.[1] In regard to correct writing or orthography "unless custom otherwise directs," says Quintilian, "I would have every word written as pronounced; for the use and business of letters is to preserve sounds, and to present them faithfully to the eye of the reader, as a pledge committed to their charge. They ought therefore to express what we have to say." This is a plea for what at the present time is termed "simplified spelling."

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[1] Bk. i, ch. iv.

[2] See Wilkins' *Roman Education*, p. 19 *et seq.*

[3] Bk. i, ch. iv. Cf. bk. i, ch. i.

Like Plato, Quintilian recognises that children should be taught not only what is beautiful and eloquent, but in a greater degree what is good and honest. Homer and Virgil should consequently be read first, even although "to be sensible of their beauties is the business of riper judgment." Tragedy and lyric poetry may likewise be employed, but Greek lyrics being written with somewhat too great freedom, and elegies that treat of love should not be put into children's hands. When morals run no risk, comedy may be a principal study. The general aim of reading at this stage is to make youths read such books as enlarge their minds and strengthen their genius; for erudition will come of itself in more advanced years. The study of grammar and love of reading should not, however, be confined to school-days, but rather extended to the last period of life.

Quintilian, after discussing grammar, proceeds to consider the other arts and sciences, a knowledge of which the future orator ought to acquire at the grammar school; and in justification of his selection he reiterates that he has in mind "the image of that perfect orator to whom nothing is wanting."[1]

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[1] Bk. i, ch. vi.

Music must be included in the training of the orator,[2] and Quintilian maintains that he might content himself with citing the authority of the ancients, and in this connection instances Plato, by whom Grammar was even considered to fall under Music. According to Quintilian, Music has two rhythms: the one in the voice, the other in the body. The former treats of the proper selection and pronunciation of words, the tone of voice, those being suited to the nature of the cause pleaded:[3] the latter deals with the gestures or action which should accompany and harmonise with the voice. But this falls to be dealt with in the school of rhetoric, and is considered at some length by Quintilian towards the conclusion of his work.[4]

Geometry, as in Plato's scheme, is included by Quintilian,[5] but, unlike Plato in the *Republic*, Quintilian does not despise its practical advantages to the orator, who in a court might make an error in calculation or "make a motion with his fingers which disagrees with the number he calculates," and thus lead people to harbour an ill opinion of his ability; plane geometry is not less necessary as many lawsuits concern estates and boundaries. Plato made geometry a preparation for philosophy, and Quintilian recommends it as a training for eloquence. As order is necessary to geometry, so also, says Quintilian, is it essential to eloquence. Geometry lays down principles, draws conclusions from them, and proves uncertainties by certainties; does not oratory do the same? he asks. It is thus on the disciplinary value of geometry that Quintilian, following Plato, insists.[1]

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[1] Bk. i, ch. vii.

[2] Bk. i, ch. viii.

[3] Bk. i, ch. x, and bk. xi, ch. iii.

[4] Cf. bk. xi, ch. iii.

[5] Bk. i, ch. ix.

Quintilian would also have the pupil resort to a school of physical culture, there to acquire a graceful carriage.

Dancing, too, might be allowed while the pupil is still young, but should not be long continued; for it is an orator, not a dancer, that is to be formed. "This benefit, however, will accrue from it that without thinking, and imperceptibly, a secret grace will mingle with all our behaviour and continue with us through life."

Having determined the selection of subjects, Quintilian inquires whether they can be taught and learned concurrently, even supposing that they are necessary.[2] The argument against this procedure is that many subjects of different tendency, if taught together, would bring confusion into the mind and distract the attention. It is also contended that neither the body, nor mind, nor length of day divided amongst such a diversity of studies would be sufficient to hold out; and though more robust years might undergo the toil, it should not be presumed that the delicate constitutions of children are equal to the same burden. But Quintilian replies that they who reason thus are not sufficiently acquainted with the nature of the human mind, which is so active, quick, and keeps such a multiplicity of points of view before it that it cannot restrict itself to one particular thing, but extends its powers to a great many, not only during the same day, but likewise at the same moment. What, then, he asks, should hinder us applying our minds to many subjects, having several hours for reflection, especially when variety refreshes and renovates the mind? It is the opposite course, namely, to persevere in one and the same study that is painful. To be restricted for a whole day to one master fatigues greatly, but changes may be recreative. In support of his argument Quintilian adduces the analogy of farming, asking, "Why do we not advise our farmers not to cultivate at the same time their fields, vineyards, olive-grounds and shrubs?" Any of these occupations continued without interruption would prove very tiresome; in Quintilian's view, it is much easier to do many things than confine ourselves long to one.

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[1] Cf. E. C. Moore, *What is Education?* ch. iii.

[2] Bk. i, ch. xi.

The principle of the co-ordination of studies is also supported by Quintilian on the ground that no age is less liable to fatigue than childhood; but it would have been more scientific had he maintained that no age is more readily fatigued, hence the need for change. After concluding the survey of grammar-school education, Quintilian turns to consider that of the school of rhetoric, and at the outset complains of a certain overlapping in the work of the two types of schools, maintaining that it would be better if each confined itself to its own proper task.

In selecting a school of rhetoric for a youth, his first consideration is the master's morals. The character which Quintilian requires is expressed thus:[1] "Let him have towards his pupils the benevolent disposition of a parent, and consider himself as holding the place of those who have entrusted him with this charge. He must neither be vicious himself, nor countenance vice; austere though not harsh; mild though not familiar; lest the first generate hatred, the second contempt. Let him talk frequently of virtue. The oftener he advises, the seldomer he will be obliged to punish. Let him be plain and simple in his manner of teaching; patient in labour; rather punctual in making his scholars comply with their duty, than too exact in requiring more than they can do." The same high standard as in moral attainment is deemed requisite for the intellectual qualifications of the master of the school of rhetoric.

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[1] Bk. ii, ch. ii.

He characterises as silly the opinion of those who, when their boys are fit for the school of rhetoric, do not consider it necessary to place them immediately under the care of the most eminent, but allow them to remain at schools of less repute; for the succeeding master will have the double burden of unteaching what is wrong as well as teaching what is right. Distinguished masters, it might be maintained, may think it beneath them or may not be able to descend to such small matters as the elements, but he who cannot, Quintilian retorts, should not be ranked in the catalogue of teachers, for it is not possible that he who excels in great, should be ignorant of little things. The plainest method, he adds, is always the best, and this the most learned possess in a greater degree than others.

Having discussed the type of school to which the pupil of rhetoric should be sent, Quintilian considers the subjects to be taught and the methods to be employed. The treatment of rhetoric extending from Bk. III. to Bk. XII. of the *Institutes* is of a highly technical nature and of little value or interest to the student of Education, although it may be a profitable study for the writer who seeks to improve his style[1] or for the teacher of classics, as it includes, in addition to choice and arrangement of material and the principles of style, a review of Latin literature from the point of view of the orator.[2]

As the education which Quintilian prescribes is that of an orator, he does not deal with the education of women. From his remark that both parents of the orator should be cultured, it might be inferred, however, that he expected women to receive some form of education. There is no direct evidence of the existence of coeducational establishments in Rome, but it appears that girls were taught the same subjects as boys, although the early age of marriage would doubtless exclude them from the higher education in rhetoric in which, for Quintilian, the early and grammar-school education culminate.

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[1] Cf. Quiller-Couch, *The Art of Writing*, pp. 138-9.

[2] Bk. x.

Quintilian's *Institutes* is the most comprehensive, if not the most systematic, treatise on oratory in existence; it doubtless appeared too late to influence Roman education greatly, but it was regarded by the Renaissance educators as the standard and authoritative work on Education, and through them it assisted in fashioning educational training throughout Europe up to quite modern times.

CHAPTER III

ELYOT

THE period of Rome's greatness was followed by an age of intellectual sterility, and it is only when we come to the Renaissance movement in the fifteenth century that we find the real successors to the Greek and Roman writers whom we have already considered.

The Renaissance movement was an attempt to recapture the spirit and reinstate the ideals of Greek and Roman culture. It had its origin in Northern Italy, but it spread over Europe, influencing, and to some extent civilising, Germany, France, and Britain. The break with tradition and the desire for freedom which characterised the movement took in Italy a literary and aesthetic turn; in Northern Europe it was ethical and religious; in England it was partly political, but mainly educational, as we find in More's *Utopia*, Elyot's *Governor*, and Ascham's *Schoolmaster*.

The source from which the Renaissance representatives drew inspiration determined the direction of the movement. Socrates had turned from physical speculation as an unprofitable study,[1] and thereafter fixed his thought upon man and his state. His conversion had determined the course of Greek culture, which became rich in the products of the mind, in literature, philosophy, and art, and thus the Renaissance movement in Education, in its attempt to reinstate in its entirety the golden age of Greece's greatest triumphs, was predestined to be humanistic rather than realistic.

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[1] Cf. Plato's *Apology*, § 19: "The simple truth is that I have nothing to do with physical speculation."

As the Greek age was an age of great personalities, there was consequently in the Renaissance movement, which sought to reflect it, a strong individualistic tendency. Elyot prescribes the education of "noble children," Ascham the education of a well-born youth, but More provides a striking exception when in his *Utopia* he expresses the desire that "all in their childhood should be instructed in learning in their own native tongue."

The reinstatement of a past culture, even if completely attainable, must ultimately be unsatisfactory. The passage of time brings with it altered conditions, and in its new setting the old ideal appears obsolete. No age by reverting to the past can hope thus easily to escape the task of offering its own contribution to civilisation and history, and as the ideal of education reflects the general view of life current at the time, no past system of education can fully satisfy present demands. Thus humanism as an educational idea was doomed to failure; it must sooner or later exhaust itself and leave unsatisfied the new needs; and this was what actually did happen, for "the aim of education was thought of in terms of language and literature instead of in terms of life." It was also, as we have seen, an individualistic and aristocratic movement; and, although for a time it might satisfy the requirements of a specially favoured class in the community, it had nothing to offer to the rising commercial democracy and, like Plato's scheme of education in the *Republic*, it failed to make provision for the education of the producing and artisan class.

In 1417 Quintilian's *Institutes* was re-discovered, and became at once the authoritative work on Education. So true is this that Erasmus (in 1512) apologises for touching upon methods or aims in teaching, "seeing," as he says, "that Quintilian has said in effect the last word on the matter." Quintilian's ideal personality had been the orator, that of the Renaissance was the "courtier," the English equivalent of which was the Governor—Governors including all officers paid or unpaid, involved in executive or legislative activity, royal secretaries, ambassadors, judges, etc.[1] The training in both cases, Roman and Renaissance, was practically identical, namely, a training for public life; and Elyot in his *Governor* merely recapitulates the doctrines of Quintilian. It was only later in the Italian Revival, after 1470, that the influence of Plato and of Aristotle came to be felt, and the influence of the former is most evident in More's *Utopia*.

As representative of the early humanistic movement in English education we shall select for consideration Elyot's *Governor*. This work, published in 1531, is the first book on the subject of Education written and printed in English, and in this lies its main interest, for although displaying no great originality it made accessible the views on education of the classical writers, especially of Quintilian. The purpose of the work is to describe "the best form of education, or bringing up of noble children from their nativity, in such a manner as they may be found worthy and also able to be governors of a public weale."[2]

On account of the diversity of gifts amongst men, it was natural, in Elyot's opinion, that there should be differences of position in the state, that some should be governors and that to such the others should minister, receiving in return from them direction as to the way of virtue and commodious living. As the work was dedicated to Henry VIII., it was incumbent on Elyot to maintain that there should be in the state one sovereign governor, and that the subordinate governors, called magistrates, should be chosen or appointed by the sovereign governor.

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[1] Woodward, *Education during the Renaissance*, p. 272.

[2] Everyman ed., p. 15.

Like Quintilian, Elyot requires that care should be exercised in the choice of a nurse for the child so that the future governor should not in early infancy assimilate evil in any form. He would also, with Quintilian, have the child's instruction begin early, even before seven years of age, giving as his reason that, although certain of the Greek and Roman writers were of a contrary opinion, knowledge for them was to be found in works written in the mother tongue of the pupils, whereas in Elyot's time it was in Greek and Latin. For the learning of these languages much time was required; it was therefore necessary, he maintains, to encroach somewhat upon the years of childhood. The pupils are not, however, to be forced to learn, but, in accordance with the advice of Quintilian, to whom he refers, they are "to be sweetly allured thereto with praises and such pretty gifts as children delight in."

They are to be early trained to speak Latin, learning the names of objects about them and asking in Latin for things they desire. If it is possible, the nurses and those in attendance upon them are to speak Latin or at least only pure English. This "direct method" of learning Latin, as it would now be called, will prepare the way for writing Latin later on. Ascham in *The Schoolmaster,*[1] "*or plain and perfect way of teaching children to understand, write, and speak in Latin tongue,*" deprecates this method of learning, maintaining, " If children were brought up in such a house or such a school, where the Latin tongue were properly and perfectly spoken, then the daily use of speaking were the best and readiest way to learn the Latin tongue. But now, commonly, in the best schools in England for words right choice is smally regarded, true propriety wholly neglected, confusion is brought in, barbarousness is bred up so in young wits, as afterward they be, not only marred for speaking, but also corrupted in judgment as with much ado or never at all they be brought to right frame again." [1] Ascham's aim is the same as that of Elyot, " to have the children speak Latin," but he would not allow them to speak Latin till they had read and translated the first book of Sturm's *Epistles* " with a good piece of a comedy of Terence also." Speaking would come after writing in Ascham's scheme, which amounted to little more than a method of double translation.

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[1] Written 1563-8 and posthumously published in 1570.

Elyot advises that at seven years of age the pupil should be removed from the care of women and assigned to a tutor, who should be " an ancient and worshipful man in whom is proved to be much gentleness mixed with gravity and as near as can be, such an one as the child by imitating may grow to be excellent. And if he be also learned, he is the more commendable."

The first duty of the tutor is to get to know the nature of the pupil, approving and extolling any virtuous dispositions which the latter should happen to possess, and condemning in no hesitating manner any which might later lead the pupil into evil. He should also take care that the pupil is not fatigued with continual learning, but that study is diversified with exercise. To this end Elyot recommends playing on musical instruments; this should lead to the proper understanding of music which, in its turn the tutor should declare, is necessary for the better attaining the knowledge of a commonwealth.[1] Other recreative subjects which may be taken up if the pupil has a natural taste for them include painting and carving. The former has practical advantages; it is not, however, for these but on account of its recreative value that it is to be studied. These subjects are not to be compulsory. "My intention and meaning is," says Elyot, "only that a noble child by its own natural disposition and not by coercion, may be induced to receive perfect instruction in these sciences." [2]

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[1] *Schoolmaster*, Arber Reprints, pp. 28-9.

The tutor is likewise to seek out a master who is learned both in Greek and Latin and who is also of good character, and the pupil, when he knows the parts of speech and can separate one of them from another in his own language, is to be put under such an one. Elyot is of the same opinion as Quintilian concerning the order in which languages should be acquired; he would have the pupil study Greek and Latin authors both at one time or else to begin with Greek, "for as much as that is hardest to come by." If the child begins Greek at seven, he may read Greek authors for three years, using Latin meanwhile as "a familiar language." He is not to be detained long over grammar, either Latin or Greek, for grammar is but an introduction to the understanding of authors, and if too much time is spent on it, or it is dealt with too minutely, the desire of learning fails. The works to be read are mainly those enumerated in Quintilian; first Aesop's *Fables* and later Homer and Virgil. These with the others which he names—most of the other classical authors being mentioned—will, he considers, suffice till the pupil is thirteen years of age when

[1] p. 28. Cf. Plato's idea that justice is a harmony.

[2] p. 31.

reason develops and he may proceed to the study of more advanced subjects.

From fourteen to seventeen years of age the pupil is to study Logic, Rhetoric, Cosmography or Geography, which serves as a preparation for History. At the age of seventeen the pupil is considered ripe enough to pass to the study of Philosophy, which Elyot maintains should continue till twenty-one years of age. He protests against the early specialisation in Law, which at that time seemed common, maintaining that the general training in philosophy would ultimately be more profitable.[1] In philosophy Aristotle's *Ethics*, Cicero's *De Officiis*, and later, when the judgment of man is come to perfection, the works of Plato, the proverbs of Solomon with the books of *Ecclesiastes* and *Ecclesiasticus* would provide excellent lessons, and the historical parts of the *Old Testament* should be used by a nobleman after he is mature in years. The residue with the *New Testament* "is to be reverently touched, as a celestial jewel or relic."[2]

As continuous study without some manner of exercise, according to Elyot, exhausteth the vital spirits, he considers the physical exercises which are regarded as befitting a gentleman. The attention which Elyot devotes to physical culture recalls Greek rather than Roman practice, and is characteristically English. Wrestling, Running, Swimming, Handling the sword and battle-axe, Riding and Vaulting are recommended on the ground of their utility as well as for the training they afford; and the inclusion of these exercises is further justified by copious references to the use made of them by classical heroes.

Other exercises recommended, the utility of which is not always evident, include Hunting, mainly of deer, as lions and wild beasts were not to be found; not, however, hunting with dogs but rather with javelins after the manner of war. Hunting of the fox would only be followed in the deep winter when the other game is unseasonable, and hunting of the hare with greyhounds was regarded as a solace for men that be studious, and for gentlewomen "which fear neither sun nor wind for impairing their beauty." Tennis seldom used and for a little space is a good exercise for young men, Bowling he hardly approves of, Ninepins and Quoiting are utterly abject, likewise Football, "wherein is nothing but beastly fury and extreme violence; whereof proceedeth hurt, and consequently rancour and malice do remain with them that be wounded, wherefore it is to be put in perpetual silence."[1] No exercise can in Elyot's opinion compare with Archery or shooting with the long bow; on national grounds he considers that it ought to be practised because it is the characteristically English mode of warfare, and for killing game is as useful as any other kind of shooting.

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[1] Cf. pp. 68-9.

[2] p. 48.

Above all, in respect to Dancing[2] do we find Elyot adopting the Greek rather than the Roman standpoint. Not only would he permit it, but he would use dancing even as a means of training the pupil to prudence. In the various steps or movements he sees analogies with the different aspects of morality and concludes that "dancing diligently beholden shall appear to be as well a necessary study as a noble and virtuous pastime." In justification of his view Elyot cites classical and biblical instances of dancing as a religious rite or as the expression of religious thanksgiving.

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[1] In the reign of James I of Scotland, 1406-1437, the King ordered every man who played football to be fined fourpence. The time that was wasted over it, he thought, could more profitably be given to archery.

[2] pp. 85-107.

In the *Governor* there is an interesting digression [1] on the decay of learning in England. More, in his *Utopia*, had previously [2] complained that in the England of his day more than two-fifths of the people could not read English, much less Latin or Greek. Elyot attributes this condition of affairs to two main causes: the pride, avarice, and negligence of parents, and the lack of qualified teachers. To be well learned was likewise regarded as a reproach amongst gentlemen at that time, an opinion against which Ascham also inveighs,[3] and which Elyot opposes by citing from history instances of great rulers who were also great scholars. In regard to the avarice of parents he states that they take exceeding care in engaging servants to inquire into their abilities, but when engaging a schoolmaster their only concern is for how little he can be secured.

Of the dearth of good teachers Elyot remarks: "Lord God, how many good and clean wits of children be nowadays perished by ignorant schoolmasters," and for his standard of goodness he resorts to Quintilian: "I call not them grammarians which only can teach or make rules whereby a child shall only learn to speak suitable Latin, or to make six verses standing in one foot, wherein perchance shall be neither sentence nor eloquence. But I name him a grammarian by the authority of Quintilian, that speaking Latin elegantly, can expound good authors, expressing the invention and disposition of the matter, their style or form of eloquence, explicating the figures as well of sentences as words, leaving nothing, person or place named by the author, undeclared or hid from his scholars. Wherefore Quintilian saith, it is not enough for him to have read poets, but all kinds of writing must also be sought for; not for the histories only, but also for the propriety of words, which commonly do receive their authority of noble authors." Few answering this description, Elyot maintains, are to be found in the realm. Contributing causes of this are the early withdrawal of children from school, which takes from the master " the worship that he above any reward coveteth to have by the praise of his pupil," also the opinion which Quintilian had previously characterised as silly, that any kind of master was good enough to teach the elements.

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[1] pp. 49-72.

[2] 1515-1516.

[3] *Schoolmaster*, Arber Reprints, p. 60.

To remedy these defects Elyot wrote the *Governor* and, in his concluding paragraph, he states: "Now all ye readers that desire to have your children to be governors, or in any other authority in the public weale of your country, if ye bring them up and instruct them in such form as in this book is declared, they shall then seem to all men worthy to be in authority, honour and noblesse, and all that is under their governance shall prosper and come to perfection. And as a precious stone set in a rich jewel they shall be beholden and wondered at, and after the death of their body their souls for their endeavour shall be incomprehensibly rewarded of the giver of wisdom."

CHAPTER IV

LOYOLA[1]

IN the Jesuit system founded by Ignatius of Loyola[2] the aristocratic tendency which characterises the educational systems with which we have already dealt, to some extent survives. Ignatius, a knight of noble birth, recognised that, for the crusade which the Company of Jesus was enrolled to wage, all available gifts of intellect and birth would be required; consequently it gave him peculiar satisfaction when the tests imposed on candidates for admission to the Society were passed by youths of noble birth.[3] The Society devotes itself mainly, although not exclusively to higher education, but for this restriction there is historical justification. Its aim was to arrest the disintegrating forces in the religious life of Europe,[4] and to effect this it was necessary to attack the evils at their source, namely, in the universities, hence the Society's concern for higher education.

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[1] For guidance in regard to recent literature on this subject the writer is indebted to Prof. Corcoran, S.J.

[2] 15th Aug. 1534 is given as the birthday of the Company of Jesus. In 1540 the Society was approved by the Pope. For Bull bestowing the First Papal Approbation on the Company of Jesus see Appendix to English translation of *The Constitutions of the Society of Jesus*, pp. 101-6.

[3] Cf. Francis Thompson's *Saint Ignatius Loyola*, pp. 171-2.

[4] It is unhistorical to regard the Society as founded to oppose Protestantism. It is doubtful whether, when Ignatius conceived the idea of founding a new Order, he had ever heard as much as the name of Luther. Cf. R. Schwickerath, *Jesuit Education, its History and Principles*, p. 77.

While the Jesuits are expressly adjured to address themselves to higher education, they do not hesitate, when necessity requires, to devote themselves to primary instruction.[1] As the Jesuit system is sometimes charged with intentionally and unnecessarily restricting education to its higher forms, it is advisable to state the Society's attitude in its own terms. According to the *Constitutions* [2] of the Society instructing others in reading and writing would be a work of charity if the Society had a sufficient number of persons available, but on account of dearth of teachers it is not ordinarily accustomed to undertake this. Aquaviva, the fifth General of the Society, writing [3] on 22nd February, 1592, regarding the admission of young pupils to the schools of the Society, states that only those are to be admitted who are sufficiently versed in the rudiments of grammar and know how to read and write; nor is any dispensation to be granted to any one, whatever be his condition of life; but those who press the petitions upon us are to be answered, "that we are not permitted." In the *Ratio Studiorum* the twenty-first rule for the Provincial or Superior of a Province provides that for the lower studies there are to be not more than five schools: one for Rhetoric, one for Humanities and three for Grammar. Where schools are few, the Provincial is to see that the higher classes are to be retained, the lower ones being dispensed with.[4] The charge that the Society selected as a special field for its endeavours, the sphere of education, in which it believed its efforts were most required and likely to be most effective, has only to be formulated to be rendered meaningless.

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[1] In the 1832 revision of the *Ratio Studiorum*, Reg. Praef. stud. inf., 8, § 12, reference is made to elementary schools.

[2] *Constitutions*, Pt. IV, ch. xii, Declaration C. Cf. G. M. Pachtler, *Monumenta Germaniae Paedagogica*, ii, p. 54. The Declarations are not reproduced in the English edition of the *Constitutions*.

[3] Cf. Pachtler, *Monumenta Germaniae Paedagogica*, ii, p. 311.

[4] *Ratio Studiorum*, Reg. Provincialis, 21, § 4. Cf. Pachtler, v, p. 258.

It is evident that there was no intention to further a social exclusiveness, as originally the instruction which the Jesuits did ~~afford was~~ free,[1] even including the university stage, and when tempted to impose fees by the advantages accruing to their competitors who did not scruple to charge for education, no text was more frequently quoted[2] than "Freely ye have received, freely give." In this respect the Jesuit system realised a principle which many modern democracies have not yet fully attained, the Jesuit practice in this regard recalling the disinterested Greek attitude to knowledge.

If aristocrats, the Jesuits are not individualists, and for much the same reasons as Quintilian, they extol public education. "For this moral strengthening of character, no less than for the invigorating of mental energies, the system of Ignatius Loyola prescribes an education which in public,—public, as being that of many students together, public as opposed to private tutorism, public, in fine, as requiring a sufficiency of the open, fearless exercise both of practical morality and of religion."[1]

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[1] *Constitutions*, Pt. IV, ch. xv, § 4: "As the Society instructs gratuitously." In the *Constitutions*, Pt. IV, ch. vii, § 3, Ignatius decrees that gifts to which special conditions are attached are not to be accepted by the Society.

Schwickerath, *Jesuit Education*, p. 250, nevertheless admits: "It is well known that at present most Jesuit schools are compelled by sheer necessity to accept a tuition fee, because few of their colleges are endowed."

[2] Hughes's *Loyola*, pp. 67, 117. Cf. also *Constitutions*, Pt. IV, ch. vii, § 3; ch. xv, § 4.

The *Ratio Studiorum*, Reg. Praef. stud. inf., 9, enacts that no one shall be excluded because he is poor or of the common people.

The Reg. com. Prof. class. inferiorum, 50, declares that the professor is to slight no one, to care as much for the progress of the poor pupil as of the rich.

The aim of the Society of Jesus is avowedly religious. In origin it was a missionary enterprise. The Society has sometimes been characterised as a mediaeval or Catholic Salvation Army, but it does not seek to gain disciples by efforts at social amelioration, nor does it indulge in the advertising methods and corybantic displays of the modern religious organisation.[2] It prizes culture and enlists scholars, and, if military metaphor must be adopted, it might be regarded as a Crusade. Its characteristic features were its missionary enterprise and its educational activities; "the two mainstays and supports of our society," write the six commissioners who drew up the 1586 *Ratio Studiorum*,[3] "are an ardent pursuit of piety and an eminent degree of learning," and these characteristics differentiated the Society from the other religious orders whose efforts it supplemented. Thus Francis Thompson, distinguishing the duties of its members, writes:[4] "Nor was any order bound to foreign missions. But, above all, their educational obligations were a new thing. The teaching of children and the poor had no body of men vowed to its performance, and its neglect was among the abuses which drew down the censure of the council of Trent; while, in gratuitously undertaking the higher education of youth, the Jesuits were absolutely original. In his missionary assault, by preaching and ultimately by writing, upon the people of power and intellect, who were the brain and marrow of the anti-Catholic movement, he confronted the present; in his masterly seizure of the school, he confronted the future. He not only confronted, but anticipated it: he tore from the revolt the coming generation, and levied immediate posterity under the Catholic banner. If the coming years prospered a counter-reformation, a sudden return-tide of Catholicism which swept back and swamped the Renascence, that counter-movement was prepared in the Jesuit schools."

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[1] Hughes's *Loyola*, p. 99.

[2] Cf. Francis Thompson's *Saint Ignatius Loyola*, p. 157: "His methods of evangelisation were those nowadays associated with the Salvation Army."

Schwickerath, *Jesuit Education*, p. 76, note, characterises the analogy as absurd.

[3] Pachtler, v, 26.

[4] *Saint Ignatius Loyola*, p. 179.

After his surrender to the Christian life[1] it was early borne in on Loyola, while reading in the Gospel, "they understood none of these things," that without proper education his labours would be of no avail. He forthwith resolved, when over thirty years of age, to acquire from the beginning his Latin rudiments and patiently to learn his lessons among the ordinary pupils. Bringing to his studies an adult mind of a surprisingly practical type and an unerring judgment—his life affords no confirmation of the popular identification of saint with simpleton—he could reflect upon the methods employed, and from his own initial failures deduce a procedure from which others might profit. "One knows not whether more to admire his astonishing determination or his astonishing mental power, when it is reflected that he carried through his philosophical studies at the age of forty-four, having begun his whole education from the very elements others acquire in boyhood."[2]

In the original draft of what might be termed the articles of association of the new Society, mention is made of teaching. On the 3rd May, 1539, a series of resolutions was adopted, by the few companions to whom Ignatius had communicated his ideas of founding a society, agreeing (1) to take an explicit vow of obedience to the Pope ; (2) to teach the Commandments to children or anyone else ; (3) to take a fixed time—an hour more or less—to teach the Commandments and Catechism in an orderly way ; (4) to give forty days in the year for this work.[1] In the First Papal Approbation it is affirmed that the members of the Society "shall have expressly recommended to them the instruction of boys and ignorant people in the Christian doctrine of the ten commandments, and other the like rudiments, as shall seem expedient to them according to the circumstances of persons, places and times."[2] In the last vows which the Jesuit takes[3] he promises "peculiar care in the education of boys."

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[1] For life of Loyola see Francis Thompson's *Saint Ignatius Loyola.* Born 1491, died 1556.

[2] Francis Thompson's *Saint Ignatius Loyola,* p. 73.

In the *Constitutions* of the Society, a work begun at the request of the Pope in 1541, Ignatius set forth the fundamental principles of the Society.[4] This work consists of ten parts, the fourth and largest of which presents in outline the plan of studies which was later more fully elaborated in the *Ratio Studiorum.* In Part I of the *Constitutions* Ignatius prescribes the conditions of admission to the Society, and in Part II he recounts the causes justifying the dismissal of probationers or members of the Order. The qualifications which, according to Ignatius, the Society should demand of its entrants recall in several particulars the qualities which Plato in the *Republic* required of his philosophers. "It is needful," Ignatius states,[1] "that those who are admitted to aid the Society in spiritual concerns be furnished with these following gifts of God. As regards their intellect: of sound doctrine, or apt to learn it; of discretion in the management of business, or, at least, of capacity and judgment to attain to it. As to memory: of aptitude to perceive, and also to retain their perceptions. As to intentions: that they be studious of all virtue and spiritual perfection; calm, stedfast, strenuous in what they undertake for God's service; burning with zeal for the salvation of souls, and therefore attached to our Institute; which directly tends to aid and dispose the souls of men to the attainment of that ultimate end, from the hand of God, our Creator and Lord. In externals: facility of language, so needful in our intercourse with our neighbour, is most desirable. A comely presence, for the edification of those with whom we have to deal. Good health, and strength to undergo the labours of our Institute. Age to correspond with what has been said; which in those admitted to probation should exceed the fourteenth year and in those admitted to profession the twenty-fifth. As the external gifts of nobility, wealth, reputation and the like are not sufficient, if others are wanting; so, if there be a sufficiency of others, these are not essential; so far, however, as they tend to edification, they make those more fit for admission, who, even without them, would be eligible on account of the qualities before mentioned; in which, the more he excels who desires to be admitted, so much the more fit will he be for this Society, to the glory of God our Lord, and the less he excels, so much the less serviceable will he be. But the sacred unction of the divine Wisdom will instruct those who undertake this duty to His service and more abundant praise, what standard should be maintained in all these things."

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[1] Francis Thompson's *Saint Ignatius Loyola,* p. 136.

[2] Cf. Appendix to English trans. of *Constitutions,* p. 104. Cf. p. 102.

[3] *Constitutions,* Pt. V, ch. iii, § 3, English trans., p. 52.

[4] The Latin text with an English translation by an anonymous Protestant propagandist was published by Rivington, London, in 1838. The English version extends to 94 pages.

Schwickerath, *Jesuit Education,* p. 662, characterises this translation as "very unscholarly and unreliable," but himself quotes from it.

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[1] *Constitutions*, Pt. 1, ch. ii, §§ 6-13, English trans., p. 7. Cf. qualifications in First Papal Approbation—"prudent in Christ and conspicuous in learning."

In Part III of the *Constitutions* are indicated the general lines of behaviour to be followed in spiritual affairs, and what more especially concerns the educationist, a chapter is included "Of the Superintendence of the Body." Loyola, speaking from his own experience, frequently warned his companions against the subversive influence of an enfeebled bodily condition. Thus we find him writing to Borgia:[1] "As to fasting and abstinence, I think it more to the glory of God to preserve and strengthen the digestion and natural powers than to weaken them . . . I desire then that you will consider that, as soul and body are given you by God, your Creator and Maker, you will have to give an account of both, and for His sake you should not weaken your bodily nature, because the spiritual could not act with the same energy." The same sentiment inspires the treatment in the *Constitutions*. There Loyola writes:[2] "As overmuch solicitude in those things which pertain to the body is reprehensible; so a moderate regard for the preservation of health and strength of body to the service of God is commendable, and to be observed by all . . . Let a time for eating, sleeping and rising be appointed for general observation. In all those things which relate to food, clothing, habitation, and other things needful for the body, let care be taken with the divine aid, that in every probation of virtue and act of self-denial, nature be nevertheless sustained and preserved for the honour of God and his service, due regard being paid to persons in the Lord. As it is not expedient that anyone be burdened with so much bodily labour that the intellect be overwhelmed, and the body suffer detriment; so any bodily exercise, which aids either, is generally necessary for all, those not excepted who ought to be occupied in mental pursuits which should be interrupted by external employments, and not continued nor taken up without some measure of discretion. The castigation of the body should neither be immoderate nor indiscrete in vigils, fastings, and other external penances and labours, which usually do harm and hinder better things . . . Let there be some one in every house to preside over everything that relates to the good health of the body." The charge frequently made against the Jesuit system of education, that it does not regard the physical care of the pupil, is accordingly not warranted by the *Constitutions* of the Society.

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[1] Cf. Francis Thompson's *Loyola*, p. 282. Borgia became the third General of the Order.

[2] Pt. III, ch. ii, English trans., pp. 24-5. Cf. also Pt. IV, ch. iv, § 1, English trans., p. 30.

While the vows to be taken, the conduct of missions and the administration of the Society are the subjects treated in the later sections of the *Constitutions*, the Fourth Part is devoted to the regulations governing the instruction in literature and other studies of those who remain in the Society after their two years' period of probation. The first ten chapters of this Part are concerned with the organisation and management of the colleges, the remaining seven with universities.

The aim and scope of the work of colleges is thus defined:[1] "As the object of the learning to be acquired in this Society is by the divine favour to benefit their own and their neighbours' souls; this will be the measure in general and in particular cases, by which it shall be determined to what studies our scholars should apply, and how far they should proceed in them. And since, generally speaking, the acquisition of divers languages, logic, natural and moral philosophy, metaphysics, and theology, as well scholastic, as that which is termed positive, and the Sacred Scriptures assist that object; they who are sent to our colleges shall give their attention to the study of these faculties; and they shall bestow greater diligence upon those which the supreme Moderator of the studies shall consider most expedient in the Lord to the aforesaid end, the circumstances of time, place, and person being considered."

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[1] *Constitutions*, Pt. IV, ch. v, § 1, English trans., p. 31.

The order of studies to be followed is first the Latin language, then the liberal arts, thereafter Scholastic, then Positive Theology. The Sacred Scriptures may be taken either at the same time as the foregoing or afterwards.[1]

The scholars are to be assiduous in attending lectures, and diligent in preparing for them; and when they have heard them, in repeating them; in places which they have not understood, making inquiry; in others, where needful, taking notes, to provide for any future defect of memory.[2] Latin was commonly to be spoken by all, but especially by the students in Humanity;[3] and since the habit of debating is useful, especially to the students in Arts and Scholastic Theology, instructions are given[4] as to when and how these debates or disputations are to be arranged and conducted. There should be in each college a common library, of which the key is to be given to those who in the Rector's judgment ought to have it; besides these, however, every one should have such other books as are necessary.[1]

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[1] Pt. IV, ch. vi, § 4.

[2] *Ibid.*, § 8.

[3] *Ibid.*, § 13. Repeated in *Ratio Studiorum*, Reg. com. Prof. class. infer., 18, and modified slightly in 1832 *Ratio*.

[4] §§ 10-12.

Those scholars who intend to devote their lives to the work of the Society are further instructed in the performance of the ordinances of the Church;[2] "and to discharge this duty let them labour to acquire the vernacular tongue of the country thoroughly."[3]

The universities which the Society shall establish or maintain shall consist of the three faculties: Languages, Arts, and Theology;[4] "the study of Medicine and of the Law shall not be engaged in within the Universities of our Society; or at least, the Society shall not take that duty upon itself, as being remote from our Institute."[5] The curriculum in Arts shall extend over three and a half years, and that in Theology over four years. In the Arts curriculum reference is made to the natural sciences which "dispose the mind to Theology, and contribute to its perfect study and practice, and of themselves assist in the same object,"[6] and it is further enjoined, and is an interesting comment on the criticism that the Society neglects the natural sciences, that they "be taught by learned preceptors, and with proper diligence, sincerely seeking the honour and glory of God in all things."

Provision was made by Ignatius in the *Constitutions*[7] for modification of his outline plan of studies according to circumstances. That this concession should not be abused and the uniformity of the system destroyed, it was considered expedient that an authoritative yet more detailed plan of studies than that outlined in the *Constitutions* should be issued for the guidance of the schools and colleges of the Society.

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[1] Pt. IV, chap. vi, § 7.
[2] Ch. viii.
[3] *Ibid.*, § 3.
[4] Ch. xvii, § 5.
[5] Ch. xii, § 4.
[6] Ch. xii, § 3.
[7] Cf. Pt. IV, ch. vii, § 2; also ch. xiii, § 2. In the *Ratio Studiorum* the same freedom is retained. Cf. Regulae Praepositi Provincialis, 39.

The *Ratio atque Institutio Studiorum Societatis Jesu,*[1] usually referred to as the *Ratio Studiorum,* was accordingly prepared, becoming the main source of the educational doctrines of the Society; and Jouvancy's *Ratio Discendi et Docendi*[2] is regarded as the official complement to, and commentary on, the *Ratio Studiorum.*

The first draft of the *Ratio Studiorum* was the result of the labours of six Jesuits summoned to Rome in 1584 by Aquaviva, the fifth General of the Order. Availing themselves of all the material regarding methods and administration of education which they could assemble and of the experience which the practice of the Society itself afforded, they were able after a year's collaboration to present in August, 1585, to the General of the Society the results of their efforts. In 1586 the report was sent by the General to the provinces for examination and comment. A new report was issued in 1591 as *Ratio atque Institutio Studiorum,* and after further revision the final plan of studies was published at Naples in 1599 under the title *Ratio atque Institutio Studiorum Societatis Jesu.*[3]

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[1] Cf. G. M. Pachtler, "Ratio Studiorum et Institutiones Scholasticae Societatis Jesu" in *Monumenta Germaniae Paedagogica,* vol. v. The Latin text of the 1586 *Ratio* together with Latin texts and German translations, in parallel columns, of the 1599 and 1832 versions are there given. No English translation of the *Ratio* is available.

[2] Published 1703. French and German translations of this work exist, but no English translation. For outline in English see Hughes's *Loyola,* pp. 163-166.

[3] It is sometimes affirmed, *e.g.* by A. Schimberg, *L'Éducation Morale dans les Collèges de la Compagnie de Jésus en France* (p. 47, note) that the first edition of the *Ratio* appeared in 1586, that this was withdrawn on account of a certain latitude allowed in theses in the treatment of the

The *Ratio Studiorum*, unlike the *Constitutions*, deals exclusively with education. It sets forth the regulations which are to direct the Superior of a Province in dealing with education in his Province, then the regulations which the Rector of a college is to apply in governing a college, thereafter rules for the guidance of the Prefect of Studies. General regulations for the professors of the higher faculties—Theology and Philosophy—are followed by special rules for the professors of each subject in these faculties, namely, Sacred Writings, Hebrew, Scholastic Theology, Ecclesiastical History, Canonical Law and Moral or Practical Theology, Moral Philosophy, Physics and Mathematics. Regulations for the Prefects of the Lower Studies, together with regulations for the conduct of written examinations and for the awarding of prizes, are also prescribed, and these are succeeded by the general regulations for the professors of the lower classes and by detailed regulations for the professors of Rhetoric, Humanity, and Higher, Intermediate, and Lower Grammar. Rules for the pupils for the management of Academies, etc., are added. So comprehensive, systematic, and exhaustive are the regulations that the modern reader is inclined to forget that the *Ratio Studiorum* is one of the first attempts on record at educational organisation, management, and method, at a time when it was unusual even to grade pupils in classes; and one is tempted to compare it, not always to the disadvantage of the *Ratio*, with the regulations of a modern

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doctrines of St. Thomas Aquinas, and that a new edition was substituted in 1591, only to be annulled in turn by the edition of 1599.

This account is controverted by Pachtler, v, 15-24, and Schwickerath, *Jesuit Education*, pp. 112-3. The real origin of the trouble was the opposition of the Spanish Jesuits to a non-Spanish General of the Order. The work was not suppressed in Rome, but in deference to the Spanish Inquisition the cause of the offence was omitted in the 1591 edition.

school system which have only after some generations been evolved and perfected. The *Ratio Studiorum* comprehends all subjects from the principles governing the educational administration of a Province to the fixing of school holidays, the text-books to be used in teaching Latin grammar and the method of correcting exercises.

The general organisation of the educational work of the Society may be gathered from the regulations issued for the direction of the Provincial.[1] The theological course of four years is the highest, and this is preceded by a course of philosophy extending over three years. Although the course for the study of Humanity and Rhetoric cannot be exactly defined it is enacted that the Provincial shall not send pupils to philosophy before they have studied Rhetoric for two years. All students in the Philosophical Course must, according to the *Ratio* of 1599, attend lectures in Mathematics; and provision is made that students who show special proficiency in any subject should have the opportunity of extending their study of that subject. The Schools for the Lower Studies are not to exceed five: one for Rhetoric, another for Humanity, and three for Grammar. These schools are not to be confused with one another, a warning which recalls the complaint of Quintilian. Where the number of pupils warrants it, parallel classes for the various grades are to be instituted.

In the regulations for the Rector of a college[2] the need for trained teachers even for the lowest classes is recognised. That the teachers of the lower classes should not take up the work of teaching without training, it is there enacted[3] that the Rector of the college from which the teachers of Humanity and Grammar are wont to be taken should select some one specially skilled in teaching, and that towards the end of their studies the future teachers should come to him three times a week for an hour to be trained for their calling in methods of exposition, dictation, writing, correcting, and all the duties of a good teacher. The Rector is also required [1] so to divide his time and arrange his duties that he may be able to visit the schools, even the lowest; he is likewise directed [2] every month or every other month to hold general consultations with all the masters below the course of Logic, the prefects being present, and also to confer with the other teachers of the higher subjects in the presence of the general prefects. At such conferences he is to read some of the regulations for the masters, and especially those pertaining to piety and good conduct; he is to inquire of those present what difficulties occur, and what omissions are noticed, in the observance of the rules.

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[1] Regulae Praepositi Provincialis. Cf. Pachtler, v, pp. 234-267.

[2] Regulae Rectoris. Cf. Pachtler, v, 268-275.

[3] Reg. 9. The same view was expressed in a criticism of the 1586 *Ratio*. See Hughes's *Loyola*, pp. 160-1.

The Prefect of Studies [3] is to be the general instrument of the Rector, to see, according to the power entrusted to him, that the studies are rightly ordered, the schools so governed and managed that the scholars make the greatest possible progress in virtue, the arts and the sciences.[4] He is expected to be familiar with the book of the plan of studies, and to secure that the rules for all students and professors are carefully observed.[5] It is his duty to preside at all disputations to which the professors of Theology or of Philosophy come; he shall give the signal for the disputants to begin, and so divide the time that each one gets his turn. He shall see that any difficulty raised does not remain as much a difficulty after as before; he himself shall not, however, give the solution, but direct the disputants to it by questioning. He shall not only prescribe the curriculum, the subjects of repetition and of disputation, but also so distribute the work of the students that the hours for private study are profitably employed.

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[1] Reg. 3.

[2] Reg. 18.

[3] Regulae Praefecti Studiorum, Pachtler, v, 276-287.

[4] Reg. 1.

[5] Reg. 4.

In the general regulations for all the professors of the higher faculties[1] the educational aim of the Society is recalled, namely, to lead the pupil to the service and love of God and to the practice of virtue. To keep this before him each professor is required to offer up a suitable prayer before beginning his lecture. Directions are given as to how far authorities are to be followed and used by the professors in lecturing, and how they are to lecture that the students may be able to take proper notes.[2] After each lecture the professor is to remain a quarter of an hour that the students may interrogate him about the substance of the lecture.[3] A month is to be devoted at the end of each session to the repetition of the course.[4] And the last of the general rules for all the professors declares that the professor is not to show himself more familiar with one student than with another; he is to disregard no one, and to further the studies of the poor equally with the rich; he is to promote the advancement of each individual student.[5]

Detailed directions for the professors of each of the subjects in the faculties of Theology and Philosophy follow; and of these it need only be mentioned here that in the 1832 revision of the *Ratio* special provision was made for the teaching of Physics, which had previously been treated under the general title Philosophy, and the regulations for the teaching of Mathematics were modernised. That the Society did not neglect the natural sciences is confirmed by these statements, and the charge that the Society ignores changing conditions is refuted by a glance at the parallel columns on these subjects in Pachtler's edition of the *Ratio Studiorum.*[1]

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[1] Regulae communes omnibus Professoribus Superiorum Facultatum. Cf. Pachtler, v, 286-295

[2] Cf. Reg. 9.

[3] Reg. 11.

[4] Reg. 13, 1599 *Ratio*. No definite time is specified in the 1832 *Ratio*.

[5] Reg. 20.

Amongst the rules for the prefect of the lower studies[2] the following may be noted. He is to help the masters and direct them, and be especially cautious that the esteem and authority due to them be not in the least impaired.[3] Once a fortnight he is to hear each one teach.[4] He is to see that the teacher covers the class-book in the first half-year, and repeats it from the beginning in the second term.[5] The reasons for the repetition are two:[6] what is often repeated is more deeply impressed on the mind; it enables the boys of exceptional talents to pass through their course more rapidly than the others, as they can be promoted after a single term. Promotion is generally to take place after the long vacation; but where it would appear that a pupil would make better progress in a higher class he is not to be detained in the lower, but after examination to be promoted at any time of the year.[7] When there is a doubt whether a pupil should ordinarily be promoted, his class records are to be examined, and his age, diligence, and the time spent in the class are to be taken into consideration.[8] In intimating promotions the names of pupils gaining special distinction are to be announced first; the others are to be arranged in alphabetic order.[1] To further the literary training of the pupils the prefect is to institute Academies or school societies; in these on specified days the pupils are to hold lectures, debates, etc., amongst themselves.[2] A censor is to be appointed, one who is held in esteem by his fellow-pupils and who shall have the power to impose small penalties.[3] For the sake of those who are wanting in diligence and in good manners and on whom advice and exhortation have no effect, a Corrector, who is not to be a member of the Society, is to be appointed. When this is not possible some other suitable plan is to be devised. Only seldom and for serious offences is the punishment to be administered in school.[4] When reformation is despaired of, and the pupil is likely to become a danger to his fellows, he is to be expelled.[5]

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[1] *Monumenta Germaniae Paedagogica,* v, pp. 346-351.

[2] Regulae Praefecti Studiorum Inferiorum. Cf. Pachtler, v, 350-371.

[3] Reg. 4.

[4] Reg. 6.

[5] Reg. 8, § 3.

[6] Reg. 8, § 4.

[7] Reg. 13.

[8] Reg. 23.

Among the general regulations for the professors of the lower studies[6] are those dealing with the Praelectio, or method of exposition of a subject or lesson, and those concerning emulation. In the exposition of a lesson or passage four stages are to be distinguished:[7] (1) The whole passage, when not too long, is to be read through. (2) The argument is to be explained, also, when necessary, the connection with what went before. (3) Each sentence is to be read, the obscure points elucidated; the sentences are to be connected together and the sense made evident. If, in translating, the mother-tongue does not admit of this, the passage is to be translated word for word, and then the sense is to be given in the mother-tongue. (4) The whole is to be repeated from the beginning.

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[1] Reg. 26. [2] Reg. 34. [3] Reg. 37. [4] Reg. 38. [5] Reg. 40

[6] Regulae communes Professoribus classium inferiorum. Cf. Pachtler, v, 378-399.

[7] Reg. 27.

In this section the subject of emulation is also introduced. Throughout the *Constitutions* and the previous sections of the *Ratio* anything likely to excite contention or produce invidious distinctions is deprecated.[1] Graduates are not to occupy special seats in the University classes, and except in cases in which pupils have specially distinguished themselves, the class lists are to be in alphabetic order. That emulation is not a dominant or integral part of the Jesuit system may be judged from the fact that only four regulations are here devoted to it.[2] It was merely one among other devices, like disputations, etc., to enliven instruction and develop in the pupils a ready command of the knowledge which they had acquired. The directions governing its use state that the *Concertatio*, or contest, is usually so conducted that either the teacher puts the question, and the *aemulus* or adversary corrects the answer, or the adversaries question one another. The contest is to be held in the highest regard, and to take place as frequently as time permits, so that a noble emulation (*honesta aemulatio*), which is a great incitement to study, may be fostered. The contest may be engaged in by one or more on either side, especially by the better pupils of the class against one another, and a contest of one against many may even be allowed. An average pupil may sometimes challenge a distinguished pupil, and if he overcomes he succeeds to the superior office. Public contests may be allowed on occasion, but only the better pupils should take part. One class may contend with the class next to it on a common subject of study, both teachers presiding.

The spirit in which this and the other measures indicated above were conducted, can be gathered from the quaint account of the actual practice of an early Jesuit school by

[1] Cf. Hughes's *Loyola*, pp. 90, 209.

[2] Reg. 31, 32, 34, 35.

John Dury (1596-1680),[1] a Puritan divine and well-known educationist of his time, and his treatment may be recommended as a model in objectivity to many more recent and supposedly more enlightened commentators on the system.

Into the specific directions for the various professors of Rhetoric, Humanity, and Grammar, the conduct of Academies and the training of Scholastics, we cannot here enter. To trace the history of the system is also beyond the scope of this work; in truth, to the treatment of the *Ratio Studiorum* given in this chapter objection might be taken, since the *Ratio* is not the work of Ignatius; it nevertheless represents more fully, and doubtless more justly, his views on, and practices in, Education than his *Constitutions*, in which the subject could be treated only as part of the general work of the Society. By the terms of our Preface we are expressly excluded from discussing the application of the doctrines of the great educators; but as more criticism than study has been devoted to this system by writers on the history of Education it is advisable incidentally to enumerate some of the topics in regard to which the Jesuits have anticipated modern practice, and by implication to reply to the unfounded criticisms of these writers.

To the Jesuits must be given the credit of providing Education with a uniform and universal method. "So far as the evidence of history extends," it has been said,[2] "an organised caste of priests, combining the necessary leisure with the equally necessary continuity of tradition, was at all times indispensable to the beginnings of scientific research"; it appears also to have been necessary, as it was undoubtedly advantageous, for the beginnings of teaching method. The need for a uniform and universal method in teaching was thus declared in the Proem to the 1586 *Ratio*:[1] "Unless a ready and true method be adopted much labour is spent in gathering but little fruit . . . We cannot imagine that we do justice to our functions, or come up to the expectations formed of us, if we do not feed the multitude of youths, in the same way as nurses do, with food dressed up in the best way, for fear they grow up in our schools, without growing up much in learning."

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[1] Cf. Corcoran's *Studies in Classical Education*, pp. 229-247.

[2] Gomperz, *Greek Thinkers*, English trans., vol. i.

The Jesuit system does not exalt the method at the expense of the teacher, as Comenius did later. In the selection of teachers something of the same discrimination as Ignatius exercised in his choice of the first companions of the Order is still demanded; and the selected candidates are subjected to a training which in length and thoroughness no other educational system, with the possible exception of that sketched by Plato in the *Republic*, has attempted to approach.[2] Even yet the educational authorities in many modern countries have failed to realise the importance of thorough professional training for all engaged in higher education, including University teaching. The value of training was recognised in the draft *Ratio* of 1586 in the statement:[3] "It would be most profitable for the schools, if those who are about to be preceptors were privately taken in hand by some one of great experience, and for two months or more were practised by him in the method of reading, teaching, correcting, writing, and managing a class. If teachers have not learned these things beforehand, they are forced to learn them afterwards at the expense of their scholars; and then they will acquire proficiency only when they have already lost in reputation; and perchance they will never unlearn a bad habit. Sometimes such a habit is neither very serious nor incorrigible, if taken at the beginning; but if the habit is not corrected at the outset, it comes to pass that a man, who otherwise would have been most useful, becomes well-nigh useless. There is no describing how much amiss preceptors take it, if they are corrected, when they have already adopted a fixed method of teaching; and what continual disagreement ensues on that score with the Prefect of Studies. To obviate this evil, in the case of our professors, let the prefect in the chief college, whence our professors of Humanities and Grammar are usually taken, remind the Rector and Provincial, about three months before the next scholastic year begins, that, if the Province needs new professors for the following term, they should select some one eminently versed in the art of managing classes, whether he be at the time actually a professor or a student of Theology or Philosophy; and to him the future masters are to go daily for an hour, to be prepared by him for their new ministry, giving prelections in turn, writing, dictating, correcting, and discharging the other duties of a good teacher."

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[1] Pachtler, v, p. 27.

[2] Cf. Hughes's *Loyola*, chs. x, xii. Schwickerath, *Jesuit Education*, ch. xv.

[3] Pachtler, v, p. 154; Schwickerath, pp. 432-3,

The predominant place assigned to classics in the Jesuit curriculum has historical justification. The Society has not, however, as is frequently laid to its charge, bound itself slavishly to a seventeenth century curriculum.[1] From the outset provision was made for extension and modification of the curriculum, and of this liberty the

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[1] For adaptation of *Ratio* to modern conditions see Schwickerath, *Jesuit Education*, chs. vii, ix.

Society has availed itself. While it has not rashly incorporated in its educational system every innovation in social life, it has adopted such changes as seem to it permanent and valuable. The widening of the conception of culture to connote not only the classical languages but also a precise use of the mother tongue, an appreciation of modern literature, the principles of mathematics and the methods of natural science, has been recognised by the Jesuits; and the new subjects, when admitted to the curriculum, have been taught with the same thoroughness as the old. Indeed the changes which time has brought have been more fully recognised and more effectively met by the Jesuits than by some of the schools whose pupils have condemned in quite unmeasured terms the conservatism of the Jesuits.

The curriculum and methods of the Jesuit system do not require for their justification to resort to the doctrine of formal training, and it is unfortunate that recourse has been had to this doctrine in its crudest form by some who seek to justify the Jesuit system.[1] Schwickerath assumes that the term "mental gymnastics" satisfactorily designates an adequate education, ignoring the fact that the physical strength acquired by gymnastic exercises can only be of value in the business of life or even in sport when a training in its application is also undergone. The fact on which he repeatedly insists that the Jesuit system has adapted itself to the requirements of the times proves that the Jesuits do regard the content of instruction as of some significance in education. Did they interpret the doctrine of formal training as Schwickerath does, these changes would be meaningless; the content of instruction would be a matter of indifference, the value of the training being the same whatever material was employed. A modern statement of the doctrine of formal training based on careful experimental investigation exactly characterises the method of the *Ratio*. The *Ratio* insists on learning thoroughly what has to be learned, a requirement which no educationist would dispute; but all would not acknowledge that the thoroughness which is acquired in the learning of Latin would function directly in statesmanship, commercial or military life. But the *Ratio* provides what is now accepted to be the basis of the transfer of training from one subject to another, namely, "concepts of method," that is, generalised modes of procedure in teaching, if not in learning, which can be applied to new subjects as required and which facilitate the acquirement of such.[1]

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[1] *e.g.* by Schwickerath, *Jesuit Education*, ch. x.

In order of time the mathematical subjects follow the classical subjects; the subjects are taught successively, not simultaneously. While the Jesuits defend on pedagogical grounds the successive teaching of different branches of instruction in preference to the simultaneous treatment of a number of subjects[2] they modify this procedure when the educational prescriptions of any government system require this. Their arrangement, while it does not find favour with other schools of educational thought, is partly recognised in the demand of present day educators who advocate successive periods of "intensive study" of the various school subjects. In retaining the drama as an educational instrument[3] the Jesuits anticipated the

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[1] Cf. Reg. com. Prof. class. inf. 12, § 2 (1832 revision): "In learning the mother tongue very much the same method will be followed as in the study of Latin."

[2] Cf. Schwickerath, pp. 287-8.

[3] Cf. Reg. Rectoris, 73: "The subject of tragedies and comedies, which would be in Latin and but rarely performed, must be pious and edifying."

modern movement represented by what is termed the dramatic method of teaching history. In insisting on the speaking of Latin they likewise anticipated the direct method of teaching the classics. In repeating the work of the class twice in the year, and thus enabling the abler pupils to spend only half a session in a grade and thus be promoted more rapidly, they introduced a procedure now adopted by some modern school systems. By their prefect system, they separated the teaching from the disciplinary and organising aspect of school work, a principle which has recently been extended to primary schools in England, although the prefects are in these elected by their fellow-pupils. Other systems have not instituted the office of the Corrector to administer punishment, hoping, doubtless like the Jesuits themselves, that improved methods of teaching and better knowledge of the pupils may one day make this office unnecessary.

Although the Jesuits have a Corrector, who must not be a member of the order, to administer chastisement, it must not be inferred that there is undue severity in their methods. Gentleness is especially enjoined towards the pupils, Ignatius prescribing as the maxim of the Society that it "must always govern by love."[1] That obedience is one of the vows taken by the members of the Society must lighten the work of teaching, and in the Confession and the Communion the Society possesses powerful instruments for the moral and religious education of the pupil. Whatever others may think of the confessional, the Jesuit Society recognises that it is of inestimable value in the moral training of the pupil,[2] and through the communion the

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[1] Cf. Francis Thompson's *Loyola*, p. 295.

[2] Cf. Schwickerath, pp. 553-5.

Society secures practice in worship, an exercise which distinguishes the religious from the moral attitude to life, and a training in which is essential to a complete and generous education.[1]

The Jesuit system has survived since its approval by the Pope in 1540,[2] and has adapted itself with a certain measure of success to changing conditions. Its limitations are mainly self-imposed, and its defects are doubtless best known to, and can be best stated by, those who are applying it, the criticisms of others tending to be beside the mark. As its exponents are not merely educators, but missionaries of a religious faith, it has been applied in almost every country in the world. For these reasons its founder is worthy a place amongst the great educators as amongst the saints.

Although with a chivalrous self-effacement the modern exponents of this system attribute its success to the original methods of the *Ratio Studiorum*, it is doubtless to be attributed in part also to the thoroughness of the training and the devotion to their vocation of the exponents themselves. Francis Thompson, writing of Loyola—and the statement may be taken to apply to his present-day representatives—says: "When he spoke, it was not what he said, it was the suppressed heat of personal feeling, personal conviction which enkindled men. This has ever been the secret of great teachers, were they only schoolmasters; it is the communication of themselves that avails."[3] Their reward, it may be added, is the respect and affection of their pupils, the only reward of the true teacher; and probably no class of teachers has constrained such affection in their pupils as the Jesuits have done and still do. The Jesuit educational system, then, has taught the world the value of a uniform and universal method in Education, and the economy of a cultured and highly-trained teaching profession.

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[1] See ch. x of this work for incompleteness of Herbart's conception of the end of education as morality.

[2] Suppressed from 1773-1814.

[3] p. 181.

CHAPTER V

COMENIUS[1]

The early educators had confined their attention to the training of the governing classes of the community, and until the time of Comenius it was only idealists like More who dared to suggest that education should be given to all. Comenius not only proposed to teach "all things to all men," but set about in a practical fashion organising a universal system of education, devising a method of teaching which would hasten the realisation of his ideal, and even preparing school-books to illustrate how his method should be applied.

It was not that, foreseeing the triumph of democracy, he would take time by the forelock and "educate our masters"; nor was it on the grounds of an abstract political principle like the equality of man that he based his belief, but rather because of the infinite possibilities in human nature and uncertainty as the position to which providence might call this or that man that Comenius proposed to universalise education, to teach all things to all men, that some might be saved from ignorance and its consequences. It was only on religious grounds that such a faith in the universal education of the people could at that time be based, for the idea of universalising education has proved more difficult of achievement than could possibly have been foreseen by Comenius, and has been characterised as "the most momentous problem of the age."[1]

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[1] **Born in Moravia, 28th March, 1592, died 15th November, 1671, and buried at Naarden, near Amsterdam. For life, see M. W. Keatinge's *The Great Didactic of Comenius*, Pt. I.**

If it was his zeal for the religious advancement of the world that inspired the early educational efforts of Comenius, his later educational activities were secondary and subordinate to his desire to realise his ideal of Pansophia, a conception which reflects the influence of Bacon and recalls the *New Atlantis* rather than the scientific method of the *Advancement of Learning* or the *Novum Organum*. In the *New Atlantis* the central feature is Salomon's House, "which house or college is the very eye of the kingdom." This foundation is the embodiment of the scientific spirit which Bacon hoped might bring happiness to humanity. Salomon's House is a great laboratory equipped with all manner of scientific instruments, and connected with it is an organised army of scientific investigators. All the processes of nature are there artificially reproduced, and the results made to serve mankind. While Comenius failed to appreciate the value of experiment in science on which Bacon insisted, he believed that the progress of humanity could be materially advanced by the collection of all available knowledge of God, nature and art, and by its reduction, on what he considered scientific principles, to a system which he denoted by the term Pansophia or Universal Wisdom.[2]

During the visit of Comenius to London in 1641-4 those who had invited him hoped that he might be instrumental in founding a Salomon's House in England, while he himself hoped by their aid to hasten the millennium of learning to be attained by pansophic methods. Neither expectation was realised, and the fame of Comenius rests on the results of his labours in the preparation of teaching-manuals and school-books, work which, in spite of his protestations[1] as to the importance of education, he himself despised.

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[1] Cf. Wm. Hawley Smith, *All the Children of All the People.*

[2] Cf. Keatinge, *The Great Didactic of Comenius*, pp. 30-36, and Laurie, *J. A. Comenius*, pp. 20, 70.

The Great Didactic of Comenius belongs to the earlier period, to the religious rather than the pansophic; but its sub-title shows that it is something more than a manual of teaching method and that the general organisation of education was Comenius's chief concern. "The Great Didactic setting forth the whole art of Teaching all Things to all Men" has as its sub-title: "A certain Inducement to found such schools in all the Parishes, Towns and Villages of every Christian Kingdom that the entire youth of both sexes, none being excepted, shall quickly, pleasantly, and thoroughly become learned in the Sciences, pure in Morals, trained in Piety, and in this manner instructed in all things necessary for the present and for future life."

That a reorganisation of educational methods and institutions was urgent is evident from the complaint as to the condition of the schools of their day common to all the pedagogical writers of the period. Of these schools Comenius says:[2] "They are the terror of boys, and the slaughter-houses of minds,—places where a hatred of literature and books is contracted, where ten or more years are spent in learning what might be acquired in one, where what ought to be poured in gently is violently forced in and beaten in, where what ought to be put clearly and perspicuously is presented in a confused and intricate way, as if it were a collection of puzzles,—places where minds are fed on words."

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[1] Cf. Keatinge, p. 158: "The matter is indeed a serious one . . . since the salvation of the human race is at stake."

[2] S. S. Laurie, *John Amos Comenius*, p. 55.

In accordance with the ideal expressed in the sub-title of *The Great Didactic*, Comenius would establish such a system of education that all the young should be educated,[1] "not the children of the rich or of the powerful only but all alike, boys and girls, both noble and ignoble, rich and poor, in all cities and towns, villages and hamlets, should be sent to school. Let none therefore be excluded unless God has denied him sense and intelligence."[2] They were to be educated "in all those subjects which are able to make a man wise, virtuous, and pious."[3] Comenius was thus, like the other writers of his age, afflicted with the desire for omniscience, as the subjects which are able to make a man wise, virtuous, and pious afford a quite comprehensive education. He requires that every pupil should, in Milton's phrase, have a universal insight into things, and the qualification which he adds is apparent rather than real. "But do not, therefore, imagine that we demand from all men a knowledge (that is to say, an exact or deep knowledge) of all the arts and sciences. It is the principles, the causes, and the uses of all the most important things in existence that we wish all men to learn; all, that is to say, who are sent into the world to be actors as well as spectators. For we must take strong and vigorous measures that no man in his journey through life, may encounter anything unknown to him that he cannot pass sound judgment upon it and turn it to its proper use without serious error."[1]

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[1] Ch. xii, § 2. All quotations from *The Great Didactic* are from Keatinge's edition.

[2] Ch. ix, §§ 1-4. Note § 5 for justification for education of girls. "They are endowed with equal sharpness of mind and capacity for knowledge, and they are able to attain the highest positions, since they have often been called by God Himself to rule over nations. Why, therefore, should we admit them to the alphabet, and afterwards drive them away from books?"

[3] Ch. xii, § 2.

This universal instruction, Comenius believes, can be better imparted in schools than at home. Schools are necessary because it is very seldom that parents have sufficient ability or sufficient leisure to teach their children. "And although there might be parents with leisure to educate their own children, it is nevertheless better that the young should be taught together and in large classes, since better results and more pleasure are to be obtained when one pupil serves as an example and a stimulus for another. For to do what we see others do, to go where others go, to follow those who are ahead of us, and to keep in front of those who are behind us is the course of action to which we are all most naturally inclined. Young children especially are always more easily led and ruled by example than by precept. If you give them a precept, it makes little impression; if you point out that others are doing something, they imitate without being told to do so."[2]

The function of the school is fourfold: (1) talents may be cultivated by study of the sciences and the arts; (2) languages may be learned; (3) honest morals may be formed; (4) God may be sincerely worshipped. A school fulfilling its function perfectly would be[3] "one which is a true forging place of man; where the minds of those who learn are illuminated by the light of wisdom, so as to penetrate with ease all that is manifest and all that is secret, where the emotions and the desires are brought into harmony with virtue, and where the heart is filled with and permeated by divine love, so that all who are handed over to Christian schools to be imbued with true wisdom may be taught to live a heavenly life on earth; in a word, where all men are taught all things thoroughly."

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[1] Ch. x, § 1.

[2] Ch. viii, § 7 (iii).

[3] Ch. xi, § 1.

The ideal school Comenius confesses is not to be found. The existing schools are "terrors for boys and shambles for their intellects."[1] The advantages which Comenius hoped might accrue from the introduction of his scheme were:[2]

(i) All the young shall be educated,

(ii) And in all those subjects which are to make a man wise, virtuous, and pious.

(iii) The process of education, being a preparation for life, shall be completed before maturity is reached.

(iv) This education shall be conducted without blows, rigour or compulsion, as gently and pleasantly as possible, and in the most natural manner.

(v) The education given shall not be false but real, not superficial but thorough . . .

(vi) This education shall not be laborious but very easy. The class instruction shall last only four hours each day, and shall be conducted in such a manner that one master may teach a hundred of pupils at the same time, with ten times as little trouble as is now expended on the teaching of one.

These aims could, in the opinion of Comenius, be realised by basing school reform on the principle of order. Order, he believed,[3] was Education's first law, consequently he maintained that the art of teaching demands nothing more than the skilful arrangement of time, of the subjects taught and of the method. Just as Bacon with his new inductive methods failed to appreciate the part which the mind must play in originating hypotheses, so Comenius failed to recognise the importance in education of the teacher; as Bacon believed that by his method truth could straightway be attained, so Comenius assumed that it could be easily taught to all. Thus we find him adding,[1] "As soon as we succeed in finding the proper method it will be no harder to teach schoolboys, in any number desired, than with the help of the printing press, to cover a thousand sheets daily with the neatest writing."

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[1] Ch. xi, § 7.

[2] Ch. xii, § 2.

[3] Cf. ch. xiii.

The right order, or proper method, Comenius conceives can be secured if, after the manner of the writers of his time, we "follow nature." Thus he affirms:[2] "That order which is the dominating principle in the art of teaching all things to all men, should be, and can be, borrowed from no other source but the operations of nature. As soon as this principle is thoroughly secured, the process of art will proceed as easily and as spontaneously as those of nature. Very aptly does Cicero say: 'If we take nature as our guide, she will never lead us astray,' and also: 'Under the guidance of nature it is impossible to go astray.' This is our belief, and our advice is to watch the operations of nature carefully and to imitate them." For Comenius, however, "following nature" consisted merely in adducing analogies from natural processes in support of preconceived and independently acquired principles. The analogies are in many cases quite fanciful, and lend no authority to the maxims of method which are supposed to be based on them. The following instances will illustrate his method while supporting this contention:

"*Nature observes a suitable time.*[3]

For example: a bird that wishes to multiply its species, does not set about it in winter, when everything is stiff with cold, nor in summer, when everything is parched and withered by the heat; nor yet in autumn, when the vital force of all creatures declines with the sun's declining rays, and a new winter with hostile mien is approaching; but in spring, when the sun brings back life and strength to all . . .

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[1] Ch. xiii, § 15. Cf. ch. xix, §§ 16-29.

[2] Ch. xiv, § 7. Cf. ch. xvi, § 5.

[3] Ch. xvi. §§ 7-10.

Imitation.—In the same way the gardener takes care to do nothing out of season . . .

Deviation.—In direct opposition to this principle, a twofold error is committed in schools.

(i) The right time for mental exercise is not chosen.

(ii) The exercises are not properly divided, so that all advance may be made through the several stages needful, without any omission.

Rectification.—We conclude, therefore, that

(i) The education of men should be commenced in the springtime of life, that is to say, in boyhood.

(ii) The morning hours are the most suitable for study (for here again the morning is the equivalent of spring . . .).

(iii) All the subjects that are to be learned should be arranged so as to suit the age of the students, that nothing which is beyond their comprehension be given them to learn.

Nature is not confused in its operations, but in its forward progress advances distinctly from one point to another.[1]

For example: if a bird is being produced, its bones, veins, and nerves are formed at separate and distinct periods . . .

Imitation.—When a builder lays foundations he does not build the walls at the same time, much less does he put on the roof, but does each of these things at the proper time and in the proper place.

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[1] Ch. xvi, §§ 26-32. Contrast with analogy used by Quintilian: see above p. 49.

Deviation.—Confusion has arisen in the schools through the endeavour to teach the scholars many things at one time. As, for example, Latin and Greek grammar, perhaps rhetoric and poetic as well, and a multitude of other subjects . . .

Rectification.—Schools, therefore, should be organised in such a manner that the scholar shall be occupied with only one object of study at any given time.

Nature makes no leaps, but proceeds step by step.[1]

The development of a chicken consists of certain gradual processes which cannot be omitted or deferred, until finally it breaks its shell and comes forth.

Imitation.—The builder proceeds in the same manner . . .

Deviation.—It is an evident absurdity, therefore, if teachers, for their own sake and that of their pupils, do not graduate the subjects which they teach . . .

Rectification.—It follows therefore

(i) That all studies should be carefully graduated throughout the various classes in such a way that those that come first may prepare the way for, and throw light on, those that come after.

(ii) That the time should be carefully divided, so that each year, each month, each day, and each hour may have its appointed task.

(iii) That the division of the time and of the subjects of study should be rigidly adhered to, that nothing may be omitted or perverted.

Nature does not hurry, but advances slowly.[2]

For example, a bird does not place its eggs in the fire, in order to hatch them quickly, but lets them develop slowly under the influence of natural warmth.

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[1] Ch. xvi, §§ 46-50.

[2] Ch. xvii, §§ 31-35.

Imitation.—The builder, too, does not erect the walls on the foundations with undue haste and then straightway put on the roof.

Deviation.—For the young, therefore, it is torture

(i) If they are compelled to receive six, seven, or eight hours' class instruction daily, and private lessons in addition.

(ii) If they are overburdened with dictations, with exercises . . .

Rectification.—The ease and the pleasantness of study will therefore be increased :

(i) If the class instruction be curtailed as much as possible, namely to four hours, and if the same length of time be left for private study.

(ii) If the pupils be forced to memorise as little as possible, that is to say, only the most important things ; of the rest, they need only grasp the general meaning.

(iii) If everything be arranged to suit the capacity of the pupil, which increases naturally with study and age."

The value of Comenius's principles must clearly be estimated independently of the analogies from nature adduced by him in support of them. The method which he adopted while apparently securing uniformity in presentation actually results in a most unsystematic arrangement of the principles of school organisation and of the maxims of teaching method. Comenius's claim to present an *a priori* system is far from justified, and his criticisms of his predecessors' collections[1] of *a posteriori* precepts are not inapplicable to his own work. Thus stripped of the quasi-philosophical deductions which accompany them, his precepts arrange themselves in order as follows :

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[1] Cf. Greeting to the Reader, §§ 2-3

The education of men should be commenced in boyhood.

The morning hours are the most suitable for study.

All the subjects that are to be learned should be arranged so as to suit the age of the students.[1]

It is necessary that books and the materials necessary for teaching be held in readiness.

It is necessary that the understanding be first instructed in things, and then taught to express them in language.

It is necessary that no language be learned from a grammar, but from suitable authors.

It is necessary that the knowledge of things precede the knowledge of their combinations.

And that examples come before rules.[2]

It is desirable that all who enter schools persevere in their studies.

It is desirable that before any special study is introduced, the minds of the students be prepared and made receptive of it.[3]

Etc.

Following nature does not evidently produce that order among his principles which Comenius assumed would result from this procedure, and constitute the basis of school reform.[4]

Some of the principles and methods recommended by Comenius are common to him and to the Jesuits. Thus Comenius advises that care should be exercised in the selection of texts put into pupils' hands; he maintains[5] that the books which the scholars use should be such as can rightly be termed sources of wisdom, virtue, and piety; and he deplores the fact that more caution has not been exercised in the matter.[1] To the argument that pagan books should be removed from the schools he devotes a chapter,[2] although from his premises he somewhat inconsistently concludes that "we do not absolutely prohibit Christians from reading heathen writers. Great caution should be used, and this is what we urge." The Jesuits had previously made similar recommendations, the *Ratio Studiorum* instructing the Provincial[3] that the school books which might do harm to virtue or good morals should be withheld from pupils till the offensive passages be expurgated; and the Professors of the Lower Studies are advised[4] to refrain from reading works prejudicial to good morals, and not only to abstain from expounding these but also to deter pupils as far as possible from reading these out of school. The following paragraphs of Comenius[5] likewise read almost like a paraphrase of the Jesuit regulations: "If the scholars are to be interested, care must be taken to make the method palatable, so that everything, no matter how serious, may be placed before them in a familiar and attractive manner; in the form of a dialogue, for instance, by pitting the boys against one another to answer and explain riddling questions, comparisons and fables . . ." "The civil authorities and the managers of schools can kindle the zeal of the scholars by being present at public performances (such as declarations, disputations, examinations and promotions), and by praising the industrious ones and giving them small presents (without respect of person)." Even emulation is commended by Comenius as "by far the best stimulus"[1] with school pupils.

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[1] Ch. xii, § 10. [2] Ch. xii, § 19. [3] Ch. xii, § 25.

[4] Cf. ch. xiii. [5] Ch. xvii, § 62 (ii).

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[1] Ch. ix, § 6. Cf. ch. xix, § 52.

[2] Ch. xxv. Comenius also recommends the use of Epitomes (ch. xxi), the use of which by the Jesuits has been criticised.

[3] Reg. Provincialis, 34.

[4] Reg. com. Prof. class. inf., 8.

[5] Ch. xvii, §§ 19-20. For further references to contests see ch. xix, § 25; xxvi, § 5; to public debates or dissertations, ch. xxxi. § 5.

There are withal in the writings of Comenius certain definite characteristics distinguishing his work from that of his predecessors. The most noteworthy is the strong democratic tendency resulting in an emphasis on the teaching of the vernacular. Thus he affirms:[2] "The education that I propose includes all that is proper for a man, and is one in which all men who are born into this world should share. All therefore, as far as possible, should be educated together, that they may stimulate and urge on one another.

"We wish all men to be trained in all the virtues, especially in modesty, sociability, and politeness, and it is therefore undesirable to create class distinctions at such an early age, or to give some children the opportunity of considering their own lot with satisfaction and that of others with scorn.

"When boys are only six years old, it is too early to determine their vocation in life, or whether they are more suited for learning or for manual labour. At this age neither the mind nor the inclinations are sufficiently developed, while, later on, it will be easy to form a sound opinion on both. Nor should admission to the Latin School be reserved for the sons of rich men, nobles and magistrates, as if these were the only boys who would ever be able to fill similar positions. The wind blows where it will, and does not always begin to blow at a fixed time."

In stating his views on the university course Comenius adds:[3] "The studies will progress with ease and success if only select intellects, the flower of mankind, attempt them. The rest had better turn their attention to more suitable occupations, such as agriculture, mechanics or trade," a recommendation which recalls the advice of Montaigne who, for the pupil having no aptitude for learning, suggests as the best remedy that "he be put prentice to some base occupation, in some good town or other, yea, were he the son of a Duke."[1]

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[1] Ch. xix, § 16. [2] Ch. xxix, § 2. [3] Ch. xxxi, § 4.

The common school for all pupils from six to twelve years of age necessitates not only that the teaching of other languages should be carried on through the mother-tongue,[2] but also that direct instruction in the mother-tongue itself should be given. "To attempt to teach a foreign language before the mother-tongue has been learned is," says Comenius,[3] "as irrational as to teach a boy to ride before he can walk. Cicero declared that he could not teach elocution to those who were unable to speak, and, in the same way, my method confesses its inability to teach Latin to those who are ignorant of their mother-tongue, since the one paves the way for the other. Finally, what I have in view is an education in the objects that surround us, and a brief survey of this education can be obtained from books written in the mother-tongue, which embody a list of the things that exist in the external world. This preliminary survey will render the acquisition of Latin far easier, for it will only be necessary to adapt a new nomenclature to objects." Montaigne had earlier recommended[1] learning first the mother-tongue, but, unlike Comenius, he was proposing an education suitable for "a complete gentleman born of noble parentage."

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[1] *Essays,* "Of the Institution and Education of Children." From a manuscript emendation (cf. Laurie, *Educational Opinion from the Renaissance*, p. 105) it appears that Montaigne would give such pupils even shorter shrift, as he there recommends the masters to "strangle such youths if they can do it without witnesses."

[2] Cf. ch. xvii, §§ 27, 28.

[3] Ch. xxix, §§ 3-4. For the teaching of the vernacular see whole chapter.

With greater insistence than any of his predecessors Comenius reiterates the principle that the child should be first instructed in things before being taught to express them in language,[2] that everything should be first learned through the medium of the senses.[3] "Men must," he explains,[4] "as far as possible, be taught to become wise by studying the heavens, the earth, oaks, and beeches, but not by studying books; that is to say, they must learn to know and investigate the things themselves, and not the observations that other people have made about the things. We shall thus tread in the footsteps of the wise men of old, if each of us obtain his knowledge from the originals, from things themselves, and from no other source." And echoing Bacon, he adds, "That no information should be imparted on the grounds of bookish authority, but should be authorised by actual demonstration to the senses and to the intellect."

The futility of the existing methods of education sorely distressed Comenius, and constrained him, as it constrained the Jesuits, to formulate a system of school organisation and of teaching method. Among the defects which he diagnosed were that each school and even each teacher used a different method, that one method was used in one language and another in another, and even in the same subject the method was so varied that the pupil scarcely understood in what way he was expected to learn. No method was known by which instruction was given to all the pupils in a class at the same time; the individual only was taught.[1] To remedy these defects he proposed[2] that there should only be one teacher in each school or at any rate in each class; only one author should be used for each subject studied; the same exercises should be given to the whole class; all subjects and languages should be taught by the same method; everything should be taught thoroughly, briefly, and pithily; all things that are naturally connected ought to be taught in combination; every subject should be taught in definitely graded steps, that the work of one day may thus expand that of the previous day, and lead up to that of the morrow; and finally, everything that is useless should be invariably discarded.

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[1] *Essays*, (1580). "Of the Institution and Education of Children:" ". . . I would first know mine own tongue perfectly, then my neighbours with whom I have most commerce."

[2] Ch. xvi, § 19.

[3] Ch. xvii, § 2 (viii). Cf. § 38 (iii).

[4] Ch. xviii, § 28. Cf. ch. xx.

Not only would Comenius make instruction more methodical but he would also make it more agreeable to the pupil. He suggests[3] that the school should be situated in a quiet spot, far from noise and distraction, and explains further:[4] "The school itself should be a pleasant place, and attractive to the eye both within and without. Within, the room should be bright and clean, and its walls should be ornamented by pictures. These should be either portraits of celebrated men, geographical maps, historical plans, or other ornaments.[5] Without, there should be an open place to walk and to play in (for this is absolutely necessary for children), and there should also be a garden attached, into which scholars may be allowed to go from time to time and where they may feast their eyes on trees, flowers and plants. If this be done, boys will, in all probability, go to school with as much pleasure as to fairs, where they always hope to see and hear something new."

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[1] Ch. xix, §§ 7, 8.

[2] Ch. xix, § 14.

[3] Ch. xvi, § 56 (ii).

[4] Ch. xvii, § 17.

[5] Cf. *Ibid.*, § 42.

The need for suitable school-books was early felt by Comenius. Like the other educators of his time, and in spite of the prominence he assigned to the teaching of the vernacular, Comenius was condemned to devote attention to the teaching of languages, especially of Latin. Here, however, he met with his greatest practical success, for the text-books which he prepared to facilitate the learning of Latin [1] won ready acceptance, his *Janua Linguarum Reserta* [2] being doubtless the most celebrated school-book ever published, and his *Orbis Pictus* [3] the first picture-book ever prepared for children.

On school discipline Comenius held enlightened views, and his recommendations follow the principles enunciated by Quintilian [4] on this subject. Thus he affirms: [5] "That no blows be given for lack of readiness to learn (for, if the pupil do not learn readily, this is the fault of no one but the teacher, who either does not know how to make his pupil receptive of knowledge or does not take the trouble to do so);" and in his chapter "Of School Discipline" [6] the analogy he there employs lends force to his argument. Thus he says: "A musician does not strike his lyre a blow with his fist or with a stick, nor does he throw it against the wall, because it produces a discordant sound; but, setting to work on scientific principles, he tunes it and gets it into order. Just such a skilful and sympathetic treatment is necessary to instil a love of learning into the minds of our pupils, and any other procedure will only convert their idleness into antipathy and their lack of industry into downright stupidity."

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[1] See Keatinge, *The Great Didactic of Comenius*, Intr., pp. 72-9.

[2] Cf. Keatinge, ch. xxii, §§ 4-6.

[3] Cf. on picture-books *The Great Didactic*, ch. xxviii, §§ 25-6. For comparison of the *Janua* of Comenius with that earlier published by Bathe, a Jesuit priest of the Irish College at Salamanca, see T. Corcoran, *Studies in the History of Classical Teaching*, pp. 1-130.

[4] See above ch. ii, p. 44. [5] Ch. xvii, § 41, (i). [6] Ch. xxvi.

Among the statements of Comenius are to be found certain of the maxims of teaching method, for example, "Proceed from what is easy to what is more difficult,"[1] and instead of the maxim "Proceed from the particular to the general" we find "Proceed from the general to the particular."[2] The principle of correlation is implied in the statements: "Great stress [should] be laid on the points of resemblance between cognate subjects;"[3] and "all things that are naturally connected ought to be taught in combination."[4] The inductive method of teaching, or what Adams terms "anticipatory illustration,"[5] is expressed thus:[6] "It is necessary that examples come before rules." Herbart's doctrine of interest is anticipated in such remarks as: "The desire to know and to learn should be excited in the boy in every possible manner."[7] "Every study should be commenced in such a manner as to awaken a real liking for it on the part of the scholars";[8] and although Comenius's own psychology was of the most primitive type, he anticipated the psychological principle of Pestalozzi when he affirmed[9] that nothing should be taught the young, unless it is not only permitted but actually demanded by their age and mental strength.

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[1] Ch. xvi, § 25, xvii, § 2. For discussion of these maxims see Welton, *Principles and Methods of Teaching*, pp. 62-66.

[2] Ch. xvii, § 2.

[3] Ch. xviii, § 4.

[4] Ch. xix, § 14.

[5] *Exposition and Illustration*, p. 31.

[6] Ch. xvi, § 19.

[7] Ch. xvii, § 13.

[8] Ch. xviii, § 16. Cf. ch. xix, § 20 (ii).

[9] Ch. xvii, § 38. Cf. § 35.

There is much repetition and some contradiction [1] among the principles of Comenius; but throughout his work is evinced a sincere sympathy with childhood issuing in an earnest aspiration to make education available to all, to lighten the drudgery of learning for the child and to introduce into schools a humane treatment of the pupil. As his conception of Education is wider in extension than that of the Jesuits, it is as a consequence fuller in connotation. It does not confine itself so exclusively, as does the 1599 *Ratio* of the Jesuits, to the teaching of languages, but devotes considerable attention to the acquisition of skill,[2] an aspect of training which was long neglected in Education; it likewise treats independently [3] the moral and the religious training of the pupil. For these reasons Comenius has much in common with Pestalozzi and later educationists; and had his successors in Education taken the same pains to acquaint themselves with his writings as he did with those of his predecessors and contemporaries, the history of Education would not now appear so much of a treadmill process as it usually does to the present-day reader.

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[1] Cf. ch. xvi, § 32—"Schools should be organised in such a manner that the scholar shall be occupied with only one object of study at any given time"—with ch. xix, §§ 41-47—"Exercises in reading and writing should always be combined, etc."

[2] Ch. xxi.

[3] Ch. xxiii, ch. xxiv.

CHAPTER VI

MILTON

MILTON'S *Tractate on Education* is an urgent summons to a people engaged in strenuous warfare to take heed to its educational system, lest in fighting for the shadow of its being it might come to lose the substance of its well-being. The *Tractate* rings with that majesty which is characteristic of Milton's writings. It is poetic, and would have lost its poetic effect, which is the source of its inspiration to other ages, had it been translated into a definite scheme suitable for a special time and place. Its precepts are impracticable, the scope of its curriculum ridiculous by reason of its catholicity, yet it sounds a note which even above the din of modern battles nations still hear, and would be wise to heed.

In the *Tractate* Milton does not speak from experience; he did indeed practise for a period "the mean employment" of teaching, as Johnson characterised it, an epithet which may be pardoned when we reflect on the might of the man to whom it was applied, but in his educational work Milton rises above experience and, coming near the eternal verities, speaks more impressively than the limitations and hesitations of practical applications would have allowed. He has all the contempt of the omniscient amateur for the work of the skilled craftsman, and he dismisses the efforts of his contemporaries, especially of Comenius, with the remark [1] "to search what many modern *Januas* and *Didactics* more than ever I shall read, have projected, my inclination leads me not."

The importance of the educational appeal even in time of war is urged in Milton's apology for the brevity of his treatise: "Brief I shall endeavour to be; for that which I have to say assuredly this Nation hath extreme need should be done sooner than spoken." [2]

That reform was necessary we can gather from several references in the *Tractate*. "We do amiss," says Milton,[3] "to spend seven or eight years merely in scraping together so much miserable Latin and Greek as might be learnt otherwise easily and delightfully in one year. And that which casts proficiency therein so much behind is our time lost partly in too oft idle vacations given both to schools and universities, partly in preposterous exaction, forcing the empty wits of children to compose themes, verses and orations which are the acts of ripest judgment and the final work of a head filled by long reading and observing with elegant maxims and copious invention." "And for the usual method of teaching Arts, I deem it to be an old error of universities," he continues,[4] "that instead of beginning with Arts most easy, and those be such as are most obvious to the sense, they present their young unmatriculated novices at first coming with the most intellective abstractions of Logic and Metaphysics." And in his most robust polemical manner he sums up his condemnation by characterising the current system as "pure trifling at grammar and sophistry," [5] and dismissing it [6] as "that asinine feast of sowthistles and brambles which is commonly set before them, as all the food and entertainment of their tenderest and most docile age."

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[1] *Tractate*, p. 3.

[2] p. 3.

[3] p. 4.

[4] p. 6.

[5] p. 8.

[6] p. 8.

By contrast Milton's aim in the *Tractate* is to describe "a better education in extent and comprehension far more large and yet of time far shorter, and of attainment far more certain than hath yet been in practice."[1] He does not, however, attempt to deal like Comenius with the education of the people, but merely with that of "our noble and our gentle youth," and then only between the years of twelve and twenty-one.[2] This restriction of education to the governing classes is a reversion to the practice of the early educators.

Milton's definition of Education is in these terms: "I call therefore a complete and generous education that which fits a man to perform justly, skilfully and magnanimously, all the offices both private and public of peace and war."[3]

That the education which he prescribes is "complete and generous" an enumeration of the intellectual subjects included in the curriculum which he proposes, indisputably proves. These comprise in languages: Latin, Greek, Italian, Hebrew, Chaldaic, Syriac; in the natural sciences; Arithmetic, Geography, Mathematics including Geometry and Trigonometry, Physics, Astronomy, Meteorology, Mineralogy, Anatomy, Physiology, Fortification, Architecture, Engineering and Navigation; in the philosophical sciences: Ethics, Economics, Politics, Law, Logic, Rhetoric; in Religion: the Scriptures, Theology and Church History—ancient and modern. The encyclopaedism dominating the thought of the age may be partly responsible for this formidable array; and although the science subjects are not to be studied directly but from classical authors, and some of these are to be read in compendiums, the scheme is hopelessly impossible of achievement, and we are not surprised at Milton's warning, perhaps the result of his own experience of teaching, "that this is not a bow for every man to shoot in that counts himself a teacher, but will require sinews almost equal to those that Homer gave Ulysses."[1]

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[1] p. 3. [2] pp. 17, 8. [3] p. 8.

The physical exercises which Milton prescribes are, in accordance with his definition of Education, those which are equally good both for peace and war. Fencing and wrestling he mentions, and suggests that the interval between exercise and meals should be spent in the enjoyment of music discoursed to the pupils on the organ. Military exercises, either on foot or on horseback according to age, are also prescribed. "Besides these constant exercises at home, there is another opportunity of gaining experience to be won from pleasure itself abroad. In these vernal seasons of the year, when the air is calm and pleasant, it were an injury and sullenness against nature not to go out, and see her riches, and partake in her rejoicing with Heaven and Earth. I should not therefore be a persuader to them of studying much then, after two or three year that they have well laid their grounds, but to ride out in companies with prudent and staid guides, to all the quarters of the land, learning and observing all places of strength, all commodities of building and of soil, for towns and tillage, harbours and ports for trade. Sometimes taking sea as far as to our navy, to learn there also what they can in the practical knowledge of sailing and of sea-fight."[2]

To realise his ideal of a complete and generous education Milton would establish a spacious house with grounds about it fit for an academy, and big enough to lodge a hundred and fifty persons, whereof twenty or thereabout may be attendants. This place should be at once both school and university. After this pattern as many edifices may be converted to this use as shall be needful in every city throughout the land which would tend much to the increase of learning and civility everywhere.[1] The day's work of the pupils in such an educational institute would be divided into three parts: their studies, their exercise, and their diet. The advice Milton offers in regard to the last is that it should be plain, healthful, and moderate.

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[1] p. 23.

[2] p. 21,

The only guidance Milton deigns to offer in the *Tractate* as to the general method to be adopted in instruction is that there should be a revision of work previously learned. "In this methodical course," says he,[2] "it is so supposed that they (the pupils) must proceed by the steady pace of learning onward, as at convenient times for memories' sake to retire back into the middle ward, and sometimes into the rear of what they have been taught, until they have confirmed and solidly united the whole body of their perfected knowledge."

In respect to special method Milton could not escape the influence of his times and avoid the treatment of language teaching. It must have first place; language is nevertheless to be regarded as "but an instrument conveying to us things useful to be known. And though a linguist should pride himself to have all the tongues that Babel cleft the world into, yet if he have not studied the solid things in them as well as the words and lexicons, he were nothing so much esteemed a learned man, as any yeoman or tradesman competently wise in his mother dialect only."[3] Immediately some of the chief and necessary rules of grammar are learned, the pupils are to be led to the practice of them in some chosen short book. In the same optimistic strain he adds:[1] "They might then forthwith proceed to learn the substance of good things and arts in due order which would bring the whole language quickly into their power." To make them expert in the most useful points of grammar he further suggests[2] that some easy and delightful book of Education should be read to them, some Greek work or a part of Quintilian. With an even more discreet vagueness the other subjects are dismissed. The elements of geometry are to be learned "even playing, as the old manner was."[3] Italian may be learnt "at any odd hour";[4] the Hebrew tongue at a set hour might have been gained, whereto it would be no impossibility to add the Chaldaic, and Syrian dialect.[5] If it were possible thus easily to acquire knowledge, then Milton's aim of giving the pupil "a universal insight into things" might be attainable, but even for the select class for which Milton's scheme of education was propounded and in an age of supermen, of Shakespeare and of Bacon, the proposal sounds ambitious.

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[1] p. 8. [2] p. 17. [3] p. 4.

Throughout his *Tractate* it is evident that Milton regards Education from the national and not from the individualistic standpoint. He emphasises, after the Greek fashion, the importance of a right education for the safety of the state, and it is this characteristic that gives the *Tractate* a permanent value. Thus at the outset he remarks that it is from the want of the reforming of education that the nation perishes; and towards the conclusion[6] he maintains that the methods which he proposed would try all the pupil's peculiar gifts of nature, and if there were any secret excellence among them would fetch it out and give it fair opportunities to advance itself by, which could not but mightily redound to the good of the nation. His definition of education recognising public as well as private duties, and his statement[1] that the educational institute which he would found, should be equally good both for peace and war, alike witness to the national character of Milton's educational ideal.

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[1] p. 5.
[2] p. 10.
[3] p. 11.
[4] p. 14.
[5] p. 15.
[6] p. 21.

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[1] p. 18.

CHAPTER VII

LOCKE

"LOCKE's influence," says Adams,[1] "far exceeds his fame. Most of his followers do not know their master. His point of view coincides so completely with that of the ordinary intelligent man in the street, that his following in all English-speaking countries is infinitely greater than any other philosophical writer can command." Although the conclusions of a philosophical system must ultimately be compatible with the beliefs of the plain man, the fact that a philosophical doctrine meets with immediate general acceptance tends to arouse suspicion as to its validity, since the popular mind is not distinguished by its desire for scientific precision or a demand for strict consistency, characteristics of a satisfactory philosophical system.

The appeal to common sense is likewise no recommendation now in educational questions, and Morley's eulogy on Locke[2] as the apostle of common sense thus becomes a challenge to the educationist to expect inconsistencies and compromises. That Locke's writings exhibit these is without question.

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[1] *Herbartian Psychology*, p. 33.

[2] Morley's *Rousseau*, ii, 202-3: "His manner throughout is marked by the stout wisdom of the practical teacher, who is content to assume good sense in his hearers, and feels no necessity for kindling a blaze or raising a tempest. He gives us a practical manual for producing a healthy, instructed, upright, well-mannered young English squire, who shall be rightly fitted to take his own life sensibly in hand; and procure from it a fair amount of wholesome satisfaction both for himself and

Locke's great work, the *Essay on the Human Understanding*, was published in 1690, and his *Two Treatises on Civil Government* appeared about the same time. *The Thoughts concerning Education* was published in 1693, and the *Conduct of the Understanding* was not published till after Locke's death in 1704.

In the second of his *Treatises on Civil Government* Locke sets forth his views on the origin and nature of political power. Men are, he affirms,[1] "by nature all free, equal, and independent," and remain so until by their own consent they make themselves members of some political society. The state is thus created by a compact of individuals to preserve and increase their natural rights. All rights consequently inhere in the individual, and Locke cannot on his thesis justify any action the chief motive of which is the good of the state. His political theory is individualistic, and his educational views are likewise individualistic. Locke is thus far removed from the democratic tendency found in Comenius, and in his educational writings we miss the national note which retrieves Milton's *Tractate* from ridicule and obscurity.[2]

Education is, for Locke, not a state concern but purely a parental duty. "The power then that parents have

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the people with whom he is concerned. Locke's treatise is one of the most admirable protests in the world against effeminacy and pedantry."

[1] Ch. viii.

[2] In the Epistle Dedicatory of Locke's *Thoughts* indirect reference is, however, made to the national aspect of education: "The well educating of their children is so much the duty and concern of parents, and the welfare and prosperity of the nation so much depends on it, that I would have every one lay it seriously to heart."

over their children arises from that duty which is incumbent on them, to take care of their offspring during the imperfect stage of childhood. To inform the mind, and govern the actions of their yet ignorant nonage, till reason shall take its place and ease them of that trouble, is what children want, and the parents are bound to."[1] In a thoroughgoing individualistic system in which all are free and equal, it is difficult to justify even the right of a parent to impose education on his child, especially when we cannot assume, as Locke does, that the child wants it. Locke has consequently to confess[2] that children are not born in this full state of equality, though they are born to it. "Thus we are born free as we are born rational; not that we have actually the exercise of either; age that brings one, brings with it the other too. And thus we see how natural freedom and subjection to parents may consist together, and are both founded on the same principle."

The parent's power over the child exists only till the child is educated. "When the business of education is over it ceases of itself, and is also alienable before. For a man may put the tuition of his son in other hands; and he that has made his son an apprentice to another has discharged him, during that time, of a great part of his obedience, both to himself and to his mother."[3] The position Locke sums up[4] thus: "Paternal or parental power is nothing but that which parents have over their children to govern them, for the children's good, till they come to the use of reason, or to a state of knowledge wherein they may be supposed capable to understand that rule, whether it be the law of Nature or the municipal law of the country."

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[1] *Second Treatise on Civil Government*, ch. vi.

[2] *Ibid.*, ch. vi. Cf. *Thoughts*, 10, "As years increase liberty must come with them."

[2] Ch. vi.

[4] Ch. xv.

In the *Thoughts concerning Education* Locke, holding such opinions on political science as we have just summarised, naturally lays upon the parent the duty of making provision for the education of the pupil, who, as we might expect from Locke's aristocratic associations, is "a young gentleman."[1] The parent can, however, absolve himself from much of his responsibility by assigning his son to the care of a tutor, and the *Thoughts* is largely concerned with the right choice, and the requisite qualifications, of a tutor. Locke approves of individual education under a tutor and condemns public school education.[2] The work thus recalls Elyot's *Governor* and indicates what little advance in educational thought a century and a half had achieved.

The principle on which Locke's political theory is based, namely, that men are born equal, dominates his thought in the early part of his work on Education, although in the *Conduct of the Understanding* it is abandoned. In the second *Treatise on Government* he modifies his statement of the principle by adding,[3] "Though I have said above 'That all men by nature are equal' I cannot be supposed to understand all sorts of 'equality.' Age or virtue may give men a just precedency. Excellence of parts and merits may place others above the common level. Birth may subject some, and alliance or benefits others, to pay an observance to those to whom Nature, gratitude, or other respects may have made it due; and yet all this consists with the equality which all men are in respect of jurisdiction or dominion one over another, which was the equality I there spoke of as proper to the business in hand, being that equal right that every man hath to his natural freedom, without being subjected to the will or authority of any other man." In the *Thoughts concerning Education* we have the same affirmation of equality in respect to natural endowment with a similar reservation as to the interpretation of this equality. Locke repeatedly maintains [1] that the differences to be found in the manners and abilities of men are due more to their education than to anything else, but he qualifies this assertion as to initial equality by adding [2] that, "in many cases, all that we can do, or should aim at, is to make the best of what Nature has given, to prevent the vices and faults to which such a constitution is most inclined, and give it all the advantages it is capable of. Every one's natural genius should be carried as far as it could; but to attempt the putting another upon him, will be but labour in vain; and what is so plastered on will at best sit but untowardly, and have always hanging to it the ungracefulness of constraint and affection." But in the *Conduct of the Understanding* the reservation becomes the rule, and Locke insists on inequality in natural endowment. Thus in dealing with "Parts" [3] he affirms: "There is, it is visible, great variety in men's understandings, and their natural constitutions put so wide a difference between some men in this respect, that art and industry would never be able to master; and their very natures seem to want a foundation to raise on it that which other men easily attain to. Amongst men of equal education there is great inequality of parts."

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[1] § 6. "The principal aim of my Discourse is how a young gentleman should be brought up." Cf. Epistle Dedicatory: "For if those of that rank are by their education once set right, they will quickly bring all the rest into order." Cf. also § 217.

[2] § 70. Note compromise, however: "But if, after all, it shall be thought by some that the breeding at home has too little company, and that at ordinary schools not such as it should be for a young gentleman, I think, there might be ways found out to avoid the inconveniences on the one side and the other."

[3] Ch. vi.

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[1] §§ 1, 32.

[2] § 66. This did not appear in the 1693 edition. Cf. also § 101: "There are not more differences in men's faces ... than there are in the makes and tempers of their minds."

[3] § 2.

Although Locke is evidently forced by experience to abandon the view that men are born intellectually equal, from his statement of this principle in the *Thoughts* the importance of education rather than the equality of endowment can be deduced, and it is this phase that has practical value: "The little, or almost insensible impressions on our tender infancies have very important and lasting consequences;"[1] "We have reason to conclude that great care is to be had of children's minds, and giving them that seasoning early, which shall influence their lives always after."[2]

Although the training of the mind is the principal part of education "and our main care should be about the inside, yet the clay-cottage is not to be neglected."[3] Sanity of mind and health of body constitute Locke's aims in education. He consequently deals with physical education at some length, summarising his views thus: "Plenty of open air, exercise and sleep, plain diet, no wine or strong drink, and very little or no physic, not too warm and strait clothing, especially the head and feet kept cold, and the feet often used to cold water and exposed to wet." While such a rigorous régime may have been in accordance with the best medical opinion of Locke's time, there would be few to-day willing to carry out his precepts in their entirety.

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[1] § 1.

[2] § 32.

[3] § 30. Cf. § 115: "I am not so foolish to propose the Lacedaemonian discipline in our age and constitution."

The *Thoughts* only refer to intellectual education in order to belittle it in comparison with moral training.[1] Thus Locke affirms: "We learn not to live but to dispute; and our education fits us rather for the university than the world . . . Latin and learning make all the noise; and the main stress is laid upon his proficiency in things, a great part whereof belongs not to a gentleman's calling, which is to have the knowledge of a man of business, a carriage suitable to his rank, and to be eminent and useful in his country, according to his station."[2] "'Tis virtue then, direct virtue, which is the hard and valuable part to be aimed at in education, and not a forward pertness, or any little arts of shifting. All other considerations and accomplishments should give way and be postponed to this. This is the solid and substantial good which tutors should not only read lectures, and talk of, but the labour and art of education should furnish the mind with, and fasten there, and never cease till the young man had a true relish of it, and placed his strength, his glory, and his pleasure in it."[3]

The virtue which Locke extols and to which he would even sacrifice intellectual culture is not, however, of a high order. It is merely a practical or prudential morality, and he is more concerned that the pupil should at all times appear well-bred,[4] than that he should be inspired by high ideals and perform noble actions.

At the outset of his treatment of virtue in the *Thoughts* his doctrine reflects the austerity of his views on physical training. Thus he says:[1] "As the strength of the body lies chiefly in being able to endure hardships, so also does that of the mind. And the great principle and foundation of all virtue and worth is placed in this, that a man is able to deny himself his own desires, cross his own inclinations, and purely follow what reason directs as best, though the appetite lean the other way." In this statement is implicit a dualism, and even a fundamental opposition, between appetite and reason, resulting in the somewhat ascetic counsel analogous to that given in his famous treatment of habit by James, who after enunciating the maxim "keep the faculty of effort alive by a little gratuitous exercise every day," adds "do every day or two something for no other reason than that you would rather not do it, so that when the hour of dire need draws nigh, it may find you not unnerved and untrained to stand the test."[2]

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[1] Cf. *Essay on Human Understanding.* Intd. § 6: "Our business here is not to know all things, but those which concern our conduct."

[2] § 94. Cf. § 147.

[3] § 70.

[4] Cf. §§ 93-4, 141-3, 144-5.

Locke does not ruthlessly apply his ethical doctrine in Education. When seeking to give positive guidance he relents somewhat from the self-denying ordinance just formulated, and admits:[3] "I would not have children kept from the conveniences or pleasures of life, that are not injurious to their health or virtue. On the contrary I would have their lives as pleasant and agreeable to them as may be, in a plentiful enjoyment of whatsoever might innocently delight them." He even goes so far as to suggest that were matters ordered aright, learning anything that should be taught might be made as much a recreation to play as play is to learning.[1] A more sympathetic and comprehensive view of Education than that first quoted is contained in the statement: "He that has found a way how to keep up a child's spirit, easy, active, and free, and yet at the same time to restrain him from many things he has a mind to, and to draw him to things that are uneasy to him; he, I say, that knows how to reconcile these seeming contradictions, has, in my opinion, got the true secret of education."[2]

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[1] § 33. Cf. § 38: "The principle of all virtue and excellency lies in a power of denying ourselves the satisfaction of our own desires, where reason does not authorize them."

[2] *Principles of Psychology*, i, 126.

[3] § 53. Cf. § 107: "Not that I would have parents purposely cross the desires of their children in matters of indifferency."

To attain the ideal which Locke proposes, the child is to be stimulated by example and ruled by habit. The education which Locke recommends is a training by habit—with all its limitations. It does not encourage initiative or educate for progress. To conform to the accepted social standards is all that Locke requires; to display keeness for duty, exhibit enthusiasm for a cause, or sacrifice self for an ideal would not be "good form" in a "well-bred youth" upon whom custom lies "with a weight heavy as frost, and deep almost as life." Against such a view Fichte's remark gains force: "to form habits is to fail."

Locke's view of the place of habit in education is expressed in the following passages: "The great thing to be minded in education is what habits you settle; and therefore in this, as all other things, do not begin to make anything customary, the practice whereof you would not have continue and increase."[3] "Whatsoever introduces habits, and settles customs in them deserves the care and attention of their governours, and is not a small thing in consequence."[4]

Locke consequently believes in practice rather than precept. Thus he maintains:[5] "Children are not to be

[1] § 74. [2] § 46. [3] § 18. [4] § 130.

[5] § 66. Cf. § 167: "Settle in them habits, not angrily inculcate rules."

taught by rules which will be always slipping out of their memories. What you think necessary for them to do, settle in them by an indispensable practice, as often as the occasion returns; and if it be possible, make occasions. This will beget habits in them, which being once established operate of themselves easily and naturally." Habits are to be initiated by imitation: "children (nay, and men too) do most by example;"[1] "of all the ways whereby children are to be instructed, and their manners formed, the plainest, easiest, and most efficacious is to set before their eyes the examples of those things you would have them do, or avoid, which when they are pointed out to them in the practice of persons within their knowledge, with some reflections on their beauty and unbecomingness, are of more force to draw or deter their imitation than any discourses which can be made to them."[2]

In addition to the manner in which habits should be initiated Locke also considers of importance the time of initiation, doubtless as a result of the application of his own general principle:[3] "he that is about children should well study their natures and aptitudes, and see by other trials what turn they easily take, and what becomes them; observe what their native stock is, how it may be improved, and what it is fit for: he should consider what they want, whether they be capable of having it wrought unto them by industry, and incorporated there by practice; and whether it be worth while to endeavour it."

Accordingly Locke maintains[4] that children "should seldom be put about doing even those things you have got an inclination in them to, but when they have a mind and disposition to it . . . The favourable seasons of aptitude and inclination should be heedfully laid hold of: and if they are not often enough forward of themselves, a good disposition should be talked into them before they be set upon anything." He likewise adds:[1] "Though it be past doubt, that the fittest time for children to learn anything is when their minds are in tune, and well disposed to it; when neither flagging of spirit, nor intentness of thought upon something else, makes them awkward and averse; yet two things are to be taken care of: (1) that these seasons either not being warily observed, and laid hold on as often as they return, or else, not returning as often as they should, the improvement of the child be not thereby neglected, and so he be let grow into an habitual idleness, and confirmed in this indisposition: (2) that though other things are ill learned, when the mind is either indisposed, or otherwise taken up; yet is of great moment, and worth our endeavours, to teach the mind to get the mastery over itself, and to be able, upon choice to take itself off from the hot pursuit of one thing, and set itself upon another with facility and delight, or at any time to shake off its sluggishness, and vigorously employ itself about what reason, or the advice of another shall direct."

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[1] § 67. [2] § 82. [3] § 66. [4] § 74. Cf. § 34.

Locke most nearly anticipates Herbart's doctrine of interest when he affirms:[2] "A lasting continued attention is one of the hardest tasks can be imposed on children; and therefore he that requires their application, should endeavour to make what he proposes as grateful and agreeable as possible; at least he ought to take care not to join any displeasing or frightful idea with it. If they come not to their books with some kind of liking and relish, 'tis no wonder their thoughts should be perpetually shifting from what disgusts them; and seek better entertainment in more pleasing objects, after which they will unavoidably be gadding . . .

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[1] § 75.

[2] § 167.

"The great skill of a teacher is to get and keep the attention of his scholar; whilst he has that, he is sure to advance as fast as the learner's abilities will carry him; and without that, all his bustle and pother will be to little or no purpose. To attain this, he should make the child comprehend (as much as may be) the usefulness of what he teaches him, and let him see, by what he has learnt, that he can do something, which gives him some power and real advantage above others who are ignorant of it. To this he should add sweetness in all his instructions, and by a certain tenderness in his whole carriage make the child sensible that he loves him and designs nothing but his good, the only way to beget love in the child, which will make him hearken to his lessons and relish what he teaches him."

The result will be: [1] "From things of use that they are employed in, they should always be sent away with an appetite; at least be dismissed before they are tired and grown quite sick of it, that so they may return to it again, as to a pleasure that diverts them. For you must never think them set right till they can find delight in the practice of laudable things." This last sentence, it may be remarked, expresses an ideal more akin to the Greek conception of virtue than to that earlier enunciated by Locke.

As the *Thoughts* deals mainly with education in virtue it must like all treatises on this subject emphasise the disciplinary aspect of training; hence Locke is frequently regarded as a representative of the disciplinary conception of education. With the exception, however, of occasional lapses [2] his doctrine of instruction in the *Thoughts* gives no

[1] § 108.

[2] § 159: "It may be convenient to lodge in his mind the remaining moral rules scattered up and down in the Bible, as the best exercise

warrant for this conclusion; in fact, so far as Locke gives reasons for the inclusion of the subjects somewhat unsystematically enumerated in the *Thoughts* these reasons are decidedly utilitarian. In the *Conduct of the Understanding* the disciplinary view is however definitely implied and as definitely contradicted.

The curriculum proposed in the *Thoughts* includes Reading taught in play, Writing, Drawing, Shorthand, French,[1] "because people are accustomed to the right way of teaching that language, which is by talking it into children in constant conversation, and not by grammatical rules;" and "because French is a living language and to be used more in speaking, that should be first learned."

"When he can speak and read French well, he should proceed to Latin, which 'tis a wonder parents, when they have had the experiment in French, should not think ought to be learned the same way, by talking and reading. Only care is to be taken whilst he is learning these foreign languages, by speaking and reading nothing else with his tutor, that he do not forget to read English." [2]

Locke looked upon Latin as "absolutely necessary to a gentleman," [3] but while he grants that no man can pass for a scholar who is ignorant of Greek, he adds:[4] "But I am not here considering the education of a professed scholar, but of a gentleman." Locke protests against the then accepted methods of teaching Latin, recommending[5] that it should be "talked into" the pupil, that is, taught

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of his memory." § 167: "In sciences where their reason is to be exercised I will not deny but this method may sometimes be varied, and difficulties proposed on purpose to excite industry, and accustom the mind to employ its strength and sagacity in reasoning. But yet, I guess, this is not to be done to children, whilst very young, nor at their entrance upon any sort of knowledge."

[1] § 162. [2] § 163. [3] § 164. [4] § 195. [5] § 165.

by the direct method, and he would limit the teaching of the subject to those who would have occasion to use it. "Could it be believed," he asks,[1] "unless we had everywhere amongst us examples of it, that a child should be forced to learn the rudiments of a language which he is never to use in the course of life that he is designed to, and neglect all the while the writing a good hand and casting accounts, which are of great advantage in all conditions of life, and to most trades indispensably necessary?" He likewise asks,[2] "Would not a Chinese who took notice of this way of breeding, be apt to imagine that all our young gentlemen were designed to be teachers and professors of the dead languages of foreign countries, and not to be men of business in their own?" He also suggests [3] that there is no correlation between ability in Latin and in English; in Latin "the manner of expressing of one's self is so very different from ours, that to be perfect in that would very little improve the purity and facility of his English style."

The other intellectual subjects in Locke's curriculum include [4] Geography, Astronomy, Chronology, Anatomy, besides some parts of History, Geometry, Ethics, Law, and English.[5] "To conclude this part, which concerns a young gentleman's studies, his tutor should remember that his business is not so much to teach him all that is knowable, as to raise in him a love and esteem of knowledge; and to put him in the right way of knowing and improving himself when he has a mind to it." [6]

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[1] § 164. [2] § 168. [3] § 172. [4] § 166. [5] § 189.

[6] § 195. Cf. *Conduct of the Understanding* (Clarendon Press edition), p. 35, also p. 44: "The business of education, as I have already observed, is not, as I think, to make them perfect in any one of the sciences, but so to open and dispose their minds as may best make them capable of any, when they shall apply themselves to it."

Locke's treatment of Grammar may be regarded as a "crucial instance" in deciding the question whether his educational doctrine in the *Thoughts* is disciplinarian or utilitarian, for no subject lends itself more readily to justification on disciplinarian grounds. To the question "To whom should Grammar be taught?" Locke answers,[1] "Men learn languages for the ordinary intercourse of society and communication of thoughts in common life, without any farther design in the use of them. And for this purpose the original way of learning a language by conversation not only serves well enough, but is to be preferred as the most expedite, proper and natural. Therefore to this use of language one may answer, that grammar is not necessary." "Others there are, the greatest part of whose business in this world is to be done with their tongues and with their pens; and to these it is convenient, if not necessary, that they should speak properly and correctly, whereby they may let their thoughts into other men's minds the more easily, and with the greater impression. Upon this account it is, that any sort of speaking, so as will make him to be understood, is not thought enough for a gentleman. He ought to study grammar amongst the other helps of speaking well . . . And to this purpose grammar is necessary; but it is the grammar only of their own proper tongues, and to those only who would take pains in cultivating their language, and in perfecting their styles." "There is a third sort of men, who apply themselves to two or three foreign, dead, and (which amongst us are called the) learned languages, make them their study, and pique themselves upon their skill in them. No doubt, those who propose to themselves the learning of any language with this view, and would be critically exact in it, ought carefully to study the grammar of it." Grammar is throughout regarded purely as an instrumental subject and ancillary to language; its formal training value is ignored. Logic and Rhetoric, frequently justified for their value as means of training the mind, are dismissed by Locke with but slight reference, the criterion applied being again the utilitarian—"because of the little advantage young people receive from them."[1]

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[1] § 168.

Locke's definite rejection of formal training or transfer of training occurs in an interpolation on memory in his treatment of language teaching; the view of memory stated therein is substantially sound, and except in a few minor details in agreement with the results of modern experimental researches. It may accordingly be safely quoted here without qualification. "I hear it said," he affirms,[2] "that children should be employed in getting things by heart to exercise and improve their memories. I could wish this were said with as much authority of reason, as it is with forwardness of assurance, and that this practice were established upon good observation more than old custom, for it is evident that strength of memory is owing to an happy constitution, and not to any habitual improvement got by exercise. 'Tis true, what the mind is intent upon, and, for fear of letting it slip, often imprints afresh on itself by frequent reflection, that it is apt to retain, but still according to its own natural strength of retention... But the learning pages of Latin by heart no more fits the memory for retention of anything else than the graving of one sentence in lead makes it the more capable of retaining firmly any other characters. If such a sort of exercise of the memory were able to give it strength, and improve our parts, players of all other people must needs have the best memories and be the best company. But whether the scraps that have got into their heads this way make them remember other things the better; and whether their parts be improved proportionately to the pains they have taken in getting by heart other's sayings, experience will shew. Memory is so necessary to all parts and conditions of life, and so little is to be done without it, that we are not to fear it should grow dull and useless for want of exercise, if exercise would make it grow stronger. But I fear this faculty of the mind is not capable of much help and amendment in general by any exercise or endeavour of ours, at least not by that used upon this pretence in Grammar Schools . . ."

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[1] § 188.

[2] § 176.

Before dismissing the *Thoughts*, it is necessary to add that along with certain accomplishments and recreations Locke would have his young gentlemen learn a trade. Not without apology does he make this proposal, remarking:[1] "I shall run the danger of being suspected to have forgot what I am about, and what I have above written concerning education all tending towards a gentleman's calling, with which a trade seems wholly inconsistent. And yet I cannot forbear to say, I would have him learn a trade, a manual trade; nay two or three, but one more particularly." The trades he recommends are gardening or husbandry in general, and working in wood as a carpenter, joiner or turner; and the grounds on which they are recommended are for the skill acquired and because the exercise itself is useful for health. In this democratic suggestion Locke anticipates Rousseau.[2]

The treatment of the education of a young English gentleman would not be complete without reference to travel.[3] Locke objects to the age at which "the grand tour" is usually undertaken, maintaining that the time of travel, between the ages of sixteen and twenty-one, is the least suitable.

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[1] § 201. [2] Cf. following chapter. [3] §§ 212-216.

The *Conduct of the Understanding* is but an appendix to Locke's great work, the *Essay on the Human Understanding*, and was originally intended to form a chapter of the latter. In the *Essay* Locke, denying the existence of innate principles,[1] speculative, practical, or theological, maintains that all our knowledge is derived from experience [2] in one or two ways, either in the form of sensations arising from external objects or by reflection on the mind's own operations, the mind being regarded as originally "white paper, void of all characters." [3] The experiences thus derived Locke designates by the general term "ideas," by which he understands "whatever is the object of the understanding when a man thinks." [4] The ideas thus received are "simple": these "simple" ideas may be compounded or otherwise elaborated and the results are termed "complex" ideas. In the reception of all its "simple" ideas the mind is wholly passive; but it exerts several acts of its own whereby out of its simple ideas, as the materials and foundations of the rest, the others are framed.[5] Thus, according to Locke's doctrine, arises knowledge, which he defines as "nothing but the perception of the connection of and agreement, or disagreement and repugnancy of any of our ideas." [6]

Lest Locke's view that in regard to "simple" ideas the mind is passive should be taken as a justification of indolence in educational practice, it is necessary to quote his statement in the *Conduct of the Understanding*: "We

[1] Bk. i, ch. i-iii.

[2] Bk. ii, ch. i, § 2.

[3] Bk. ii, ch. i, § 2.

[4] Intr. § 8.

[5] Bk. ii, ch. xii.

[6] Bk. iv, ch. i, § 2.

are born ignorant of everything. The superficies of things that surround them make impressions on the negligent, but no body penetrates into the inside without labour, attention and industry . . . God has made the intellectual world harmonious and beautiful without us; but it will never come into our heads all at once; we must bring it home piecemeal, and there set it up by our own industry, or else we shall have nothing but darkness and a chaos within, whatever order and light there be in things without us."

The *Essay on the Human Understanding* has, in spite of its generally recognised importance in philosophy, little direct bearing on Education. Its influence on Education was indirect, the result of the impetus to the advancement of psychology which the publication of the *Essay* initiated. Although Locke's problem, an examination of our abilities to ascertain what objects our understandings were, or were not, fitted to deal with,[1] is almost identical with that later proposed by Kant in his *Critique of Pure Reason*, the method adopted by Locke, and rejected by Kant in favour of the critical or metaphysical method, was the psychological method, what Locke terms the "historical plain method,"[2] and it was this method which influenced the study of Education. Locke claims to have given "a short true history of the first beginnings of human knowledge,"[3] and in the *Essay* there are many passages which would justify its inclusion in a bibliography of Child Study. For example:[4] "Follow a child from its birth, and observe the alterations that time makes, and you shall find, as the mind by the senses comes more and more to be furnished with ideas, it comes to be more and more awake; thinks more, the more it has matter to think on. After some time it begins to know the objects which, being most familiar with it, have made lasting impressions. Thus it comes by degrees to know the persons it daily converses with, and distinguishes them from strangers; which are instances and effects of its coming to retain and distinguish the ideas the senses convey to it. And so we may observe how the mind, by degrees, improves in these; and advances to the exercise of those other faculties of enlarging, compounding, and abstracting its ideas, and of reasoning about them, and reflecting upon all these; of which I shall have occasion to speak more hereafter."

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[1] Epistle to the reader.

[2] Introduction, § 2.

[3] Bk. ii, ch. xi, § 15.

[4] Bk. ii, ch. i, § 22.

Locke's *Conduct of the Understanding* is an attempt to diagnose the defects which most commonly occur in reasoning, and thereby determine conduct,[1] for Locke states as definitely as Herbart that the circle of thought determines the will; "in truth the ideas and images in men's minds are the invisible powers that constantly govern them, and to these they all universally pay a ready submission."[2] As the *Conduct of the Understanding* deals with "the defects of the understanding capable of amendment" it treats more specifically of intellectual training than did the *Thoughts concerning Education*.

The ordinary rules of formal Logic are in Locke's opinion not sufficient to guide the understanding,[3] and in justification of his attempt to formulate new rules he quotes the authority of Bacon. The latter had in his doctrine of *Idola* sought to classify the different fallacies to which the human mind is prone, and Locke's work amplifies Bacon's treatment.

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[1] See Stout's reference to "the *conduct* of the understanding," *Manual of Psychology*, p. 733.

[2] *Conduct of the Understanding*, § 1.

[3] *Ibid.*, p. 4.

As formal Logic is rejected, Locke turns to Mathematics, as did Descartes and Spinoza, to find his ideal of true method. Not content, however, with taking the mathematical as the standard type of reasoning, Locke makes admissions which might justify the charge of formal training. Thus he declares:[1] "Would you have a man reason well, you must use him to it betimes, exercise his mind in observing the connection of ideas and following them in train. Nothing does this better than Mathematics, which therefore I think should be taught all those who have the time and opportunity, not so much to make them mathematicians as to make them reasonable creatures." All that Locke here implies, it might legitimately be argued, is that "a concept of method"[2] can be evolved in mathematical training which may be serviceable in certain other departments of mental activity, in which case Locke goes no further than the conclusions of modern experimental investigation on the transfer of training. Whereas, if it is assumed that Locke supports the older view, that the improvement in reasoning resulting from training in mathematical subjects is of advantage in every intellectual sphere irrespective of its nature, then this is wholly at variance with his deductions from other subjects discussed both in the *Thoughts* and in other sections of the *Conduct of the Understanding.*

Thus, as we have seen, in the *Thoughts* Locke maintains that practice in one phase of memory does not result in improvement in other aspects, that the learning of one language may adversely affect the learning of another, and that training in grammar does not improve the mind in general. In the *Conduct of the Understanding* a similar conclusion is deduced in respect to habit formation. The practice-effect, he maintains, is specific, not general; and from this he draws the general conclusion that there is no transfer of training-improvement. Thus he asserts:[1] "The legs of a dancing master and the fingers of a musician fall as it were naturally, without thought or pains, into regular and admirable motions. Bid them change their parts, and they will in vain endeavour to produce like motions in the members not used to them and it will require length of time and long practice to attain but some degrees of a like ability." Then he adds:[2] "We see men frequently dexterous and sharp enough in making a bargain, who if you reason with them about matters of religion, appear perfectly stupid." And in the paragraph immediately following that in which occurs the statement just quoted, as to the general value of mathematical training, he remarks:[3] "The mistake is, that he that is found reasonable in one thing is concluded to be so in all, and to think or say otherwise is thought so august an affront, and so senseless a censure, that nobody ventures to do it."

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[1] *Conduct of the Understanding,* p. 20. Cf. § vii.

[2] See Sleight: *Educational Values.*

The weight of evidence is against the charge that Locke supports formal training and that he is a representative of the disciplinary view of education; and the lapses which we have indicated are such as are likely to be encountered in a writer who does not specifically set himself to avoid the implications of the doctrine.

The *Conduct of the Understanding*, as we have suggested, seeks to enumerate the causes which lead us into error. Thus Locke warns us against the uncritical acceptance of popularly admitted opinions,[4] counsels us to avoid prejudice,[5] to reject the doctrine of "the will to believe,"[6] to eliminate the influence of suggestion in the formation of beliefs,[1] and to be on our guard against the detrimental effects of overstrain.[2]

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[1] p. 13. [2] p. 15. [3] p. 20. [4] § 3. [5] § 10. [6] § 11.

The advice which he offers is too general to be of much practical value; this he is himself forced to admit,[3] and it is on this ground that De Quincey has condemned such works as Locke's *Conduct of the Understanding*. "The error in these books," says De Quincey,[4] "is the same which occurs in books on ethics, and which has made them more or less useless for any practical purpose. As it is important to put an end to all delusions in matters of such grave and general concern as the improvement of our understandings, or the moral valuation of actions, and as the delusion here alluded to has affected both equally, it may be worth while to spend a few lines in exposing it . . . In every syllogism one of the two premises (the major) lays down a rule, under which rule the other (the minor) brings the subject of your agreement as a particular case. The minor is therefore distinguished from the major by an act of judgment, namely, a subsumption of a special case under a general rule. Now consider how this applies to morals: here the conscience supplies the general rule, or major proposition, and about this there is no question; but to bring the special case of conduct under this general rule, here first commences the difficulty, and just upon this point are ethical treatises for the most part silent. Accordingly, no man thinks of consulting them for his direction under any moral perplexities; if he reads them at all, it is for the gratification of his understanding in surveying the order and relation amongst the several members of a system; never for the information of his moral judgment . . . With the help of this explanation you will easily understand on what principle I venture to denounce as unprofitable the whole class of books written on the model of Locke's *Conduct of the Understanding.* According to Locke, the student is not to hurry, but again not to loiter; not to be too precipitate, nor yet too hesitating; not to be too confiding, but far less too suspicious; not too obstinate in his own opinions, yet again (for the love of God!) not too resigned to those of others; not too general in his divisions, but (as he regards his own soul) not too minute, etc.

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[1] § 27.

[2] § 28.

[3] Cf. "A proper and effectual remedy for this wandering of thoughts I would be glad to find" (p. 67); "But what are the boundaries of the mean between the two vicious excesses on both hands, I think is hard to set down in words" (p. 70).

[4] *Letters to a Young Man.*

"But surely no man, bent on the improvement of his faculties, was ever guilty of these errors under these names, that is, knowingly and deliberately. If he is so at all, it is either that he has not reflected on his own method, or that, having done so, he has allowed himself in the act or habit offending these rules on a false view of its tendency and character; because, in fact, having adopted as his rule (or major) that very golden mean which Mr. Locke recommends, and which, without Mr. Locke's suggestion, he would have adopted for himself, it has yet been possible for him, by an erroneous judgment, to take up an act or habit under the rule, which with better advice he would have excluded; which advice is exactly what Mr. Locke has *not* given. Over and above all this, the method of the book is aphoristic; and as might be expected from that method, without a plan; and which is partly the cause and partly the consequence of having a plan without foundation."

Against such criticism it may be retorted on Locke's behalf that all that Locke professes to offer are general principles, and these are not, as De Quincey so lightly and unquestionably assumes, supplied by conscience, but derived from experience; and that if all that De Quincey desiderates could be accomplished, there would be no occasion for the exercise of individual initiative, and man would be a mere automaton.

The value of such a treatise as the *Conduct of the Understanding* must nevertheless not be over-rated, as have all Locke's contributions to the theory of Education by English commentators, chiefly because of the characteristic English defect of ignoring the works of the writers of other nations, a defect from which Locke himself was not free.

on Education

CHAPTER VIII

ROUSSEAU

THE early educators had one ideal—the education of the statesman, although they regarded him differently—as philosopher, orator or governor. Later the educator sought to make of his pupil "a scholar and a gentleman," [1] but Rousseau, although he did not initiate the democratic tendency in Education—that was done by Comenius,—at least popularised it, and he advocates educating—not the poor for poverty, as Pestalozzi later recommended—but the rich for poverty; he proposed to give the sons of the rich a natural education, that whatever befell them in later life they would be independent of fate or fortune. The ideal of the superman of Plato, Quintilian, and others gives place with Rousseau to the ideal of the common or natural man; the great souls, he believes, can find their way alone.[2]

There are, according to Rousseau, two antagonistic types of educational systems; one is public and common to many, the other private and domestic. For an account of public education Rousseau refers the reader of the *Emile* to Plato's *Republic*. He himself in his article on *Political Economy* had dealt with this form of education, asserting that "a public education, according to regulations prescribed by government, and under magistrates appointed by the supreme authority is one of the fundamental requirements of popular government."[1] There he also instances and recommends certain systems of public education, of the Cretans, the Spartans, and the ancient Persians; and in his *Considerations on the Government of Poland* he likewise indicated the importance of education in national life.[2]

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[1] Cf. Rousseau, *Emile*, Everyman edition, p. 321: "I have not the honour of educating 'a young gentleman.'"

[2] p. 19 Cf. p. 356: "I cannot repeat too often that I am not dealing with prodigies."

In the *Emile*, a work which he tells us in his *Confessions*[3] cost him twenty years' meditation and three years' labour, Rousseau attempts an account of private education, the education of the home,[4] and in *The New Heloïse* he gives an idyllic picture of the latter with the mother as chief educator, thus anticipating Pestalozzi's *Leonard and Gertrude*.

Although Rousseau's views on Education are not confined to the *Emile* it is nevertheless by the *Emile* that he will continue to be judged; to it we shall consequently devote most attention. Of this work Lord Morley writes:[5] "It is one of the seminal books in the history of literature, and analysis of such books the worth resides less in the parts than in the whole. It touched the deeper springs of character. It filled parents with a sense of the dignity and moment of their task. It cleared away the accumulation of clogging prejudices and obscure inveterate usage, which made education one of the dark arts. It admitted floods of light and air into the tightly closed nurseries and schoolrooms. It affected the substitution of growth for mechanism. A strong current of manliness, wholesomeness, simplicity, self-reliance, was sent through Europe, while its eloquence was the most powerful abjuration ever addressed to parental affection to cherish the young life in all love and considerate solicitude. It was the charter of youthful deliverance." And Mrs. Frederika Macdonald adds:[1] "Throughout Europe, Rousseau's voice went, proclaiming with even more resistless eloquence than it had proclaimed the *Rights of Man*, the *Rights of Childhood.* Harsh systems, founded on the old mediaeval doctrine of innate depravity, were overthrown. Before Pestalozzi, before Froebel, the author of *Emile* laid the foundation of our new theory of education: and taught the civilised world remorse and shame for the needless suffering, and the quenched joy, that through long ages had darkened the dawn of childhood."

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[1] See W. Boyd, *The Minor Educational Writings of Jean Jacques Rousseau*, p. 45.

[2] *Ibid.*, p. 141.

[3] Bk. viii.

[4] Cf. *Emile*, p. 295: "I am dealing only with home training."

[5] *Rousseau*, ii, 249-250.

In Education three factors call for consideration, the endowment, the social environment and the physical environment of the child; as Rousseau expresses it in the *Emile*:[2] "Education comes to us from nature, from men, or from things." The harmonious interaction of these three factors would constitute an ideal education, but such harmony, Rousseau is persuaded, is impossible. That man and nature are eternally at strife is his constant complaint. "Forced to combat either nature or society, you must," he says,[3] "make your choice between the man and the citizen, you cannot train both." Rousseau's choice, at least in the first instance, falls on the natural, rather than on the social education.

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[1] *Jean Jacques Rousseau: A New Study in Criticism.*

[2] p. 6 [3] p. 7.

The pupil whom Rousseau selects for educating is not a specific individual, but "man in the abstract": "We must look at the general rather than the particular, and consider our scholar as man in the abstract."[1] It is because Rousseau considers the universal nature of man and the education applicable to this aspect of man that the *Emile* has become the fount of democratic education. It is merely the exigencies of exposition that compel him to particularise and personify his principles in the education of Emile. The method which he has adopted he explains thus:[2] "I have been content to state those principles the truth of which is self-evident. But as to the rules which call for proof, I have applied them to Emile or to others, and I have shown, in very great detail, how my theories may be put into practice." And in elaboration of this principle of method he states:[3] "At first I have said little about Emile, for my earliest maxims of education, though very different from these generally accepted, are so plain that it is hard for a man of sense to refuse to accept them, but as I advance, my scholar . . . appears upon the scene more frequently, and towards the end I never lose sight of him for a moment."

It is necessary to emphasise this fact, that Rousseau is expounding a universal system of education and that the introduction of a specific pupil is merely an expository device; for frequently the *Emile* is regarded as an account of an individualistic scheme of education, of the training of an individual apart from society,[4] and then difficulty is

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[1] p. 10. Cf. p. 217: "I have discarded as artificial what belongs to one nation and not to another, to one rank and not to another; and I have regarded as proper to mankind what was common to all, at any age, in any station, and in any nation whatsoever."

[2] p. 18.

[3] *Ibid.*

[4] Cf. p. 298: "We are not concerned with a savage of this sort."

experienced in explaining how the democratic systems of Pestalozzi and others originated in the *Emile*.

This view of the universal and democratic tendency in the *Emile* is further supported by Rousseau's choice of a pupil. "If I had my choice," he says,[1] "I would take a child of ordinary mind, such as I assume in my pupil. It is ordinary people who have to be educated, and their education alone can serve as a pattern for the education of their fellows." This fact is easily overlooked because Emile is chosen from among the rich, the reason being that it is more prudent to prepare a rich man for poverty than a poor man for wealth, and if Emile comes of a good family so much the better—"he will be another victim snatched from prejudice." The other assumption postulated in regard to the pupil for whom Rousseau proposes to prescribe an education, is that he should be "a strong, well-made, healthy child." Rousseau would not undertake the care of a feeble sickly pupil, for a healthy body is not only the condition of a healthy mind but also the basis of moral character.[2]

Knowledge

The general principle governing Rousseau's training of Emile is that there is a time when each type of knowledge can be most effectively assimilated by the pupil, and that is when the pupil experiences the need for it. This he regards as the natural order of presentation, whereas the ordinary procedure anticipates the needs of the pupils—"man's lessons are usually premature."[3] In accordance with this principle Rousseau would retard the early education of the pupil up to twelve years of age, and by accelerating the process from twelve years of age onwards, recover the lost ground. This later acceleration is made possible by the more advanced age at which the knowledge is presented to the pupil, and by the fact that the knowledge is presented in a more concrete and practical fashion than by the ordinary methods. "Give me a child of twelve who knows nothing at all," says Rousseau,[1] "at fifteen I will restore him to you knowing as much as those who have been under instruction from infancy: with this difference, that your scholars only know things by heart, while mine knows how to use his knowledge."

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[1] p. 19. Cf. p. 207: "I assumed that my pupil had neither surpassing genius nor a defective understanding. I chose him of an ordinary mind to show what education could do for man."

[2] Rousseau holds in the same contempt as Plato the science of medicine and its practitioners.

[3] p. 176.

Rousseau divides the pupil's life for educational purposes into the four phases: infancy; childhood, up to twelve years of age; boyhood, twelve to fifteen years of age; and adolescence, from fifteen onwards; and in accordance with his general principle maintains:[2] "There is a time for every kind of teaching and we ought to recognise it, and each has its own dangers to be avoided."

In Book I. of the *Emile* Rousseau prescribes the régime for the training of the infant. "Education begins at birth," he recognises,[3] as did Plato, and he consequently lays down precepts for the feeding and care of the child. His aim at this stage seems to be to prepare the child for "the control of his liberty and the use of his strength by leaving his body its natural habit, by making him capable of lasting self-control, of doing all that he wills when his will is formed."[4]

In enunciating rules for the attainment of this aim Rousseau makes his contradictory statements regarding the place of habit in education, a contradiction of which his commentators have eagerly and fully availed themselves, but which is so obvious that Rousseau must have been quite well aware of it himself. He disarms all such trifling criticism by stating:[1] "I have noticed again and again that it is impossible in writing a lengthy work to use the same words always in the same sense. There is no language rich enough to supply terms and expressions sufficient for the modifications of our ideas . . . I am convinced that even in our poor language we can make our meaning clear, not by always using words in the same sense, but by taking care that every time we use a word the sense in which we use it is sufficiently indicated by the sense of the context, so that each sentence in which the word occurs acts as a sort of definition . . . I admit that my words are often contradictory, but I do not think there is any contradiction in my ideas." In like manner he defends his use of paradox, preferring rather to fall into paradox than into prejudice,[2] and he does not hesitate to acknowledge exceptions to his own rules.[3]

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[1] p. 292. [2] p. 293. [3] p. 29. [4] p. 30.

The antinomy in respect to habit may be formulated thus:—Thesis: "Education itself is but habit,"[4] or more particularised,[5] "The habit of the bath, once established, should never be broken off, it must be kept up all through life." The antithesis is formulated in the oft-quoted statement:[6] "The only habit the child should be allowed to contract is that of having no habits." Rousseau resolves the antinomy by distinguishing between natural habits which he would establish—"leave his body its natural habit," and social customs and usages, conformity with which, in accordance with his general position, he would condemn—"Our wisdom is slavish prejudice, our customs consist in control, constraint, compulsion. Civilised man is born and dies a slave." This is more evident in the statement:[1] "The only useful habit for children is to be accustomed to submit without difficulty to necessity, and the only useful habit for man is to submit without difficulty to the rule of reason. Every other habit is a vice."

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[1] p. 72, note.
[2] p. 57.
[3] p. 207.
[4] p. 7.
[5] p. 27.
[6] p. 30.

A similar antinomy is inherent in all doctrines of habit. Of its economy we must approve; its conservatism we must condemn, for here, if anywhere, the better may easily become the enemy of the best. Rousseau's restrictive and negative attitude to habit gains significance when it is related to the aim which he prescribes for early education, namely, preparing the child to use his liberty aright when he attains that stage of development. It is but one aspect of his negative education of childhood, the positive counterpart of which is freedom.

The ideal of liberty has inspired many heroic deeds and poets have often sung its praises. Rousseau, when he pictures the "delights of liberty" which a pupil rightly educated might experience, proclaims in language almost poetic the child's right to the enjoyment of his childhood and to freedom from the prejudices and prepossessions of the adult, and for his passionate pleading on the child's behalf Rousseau can be forgiven much.

The Idea?

"Freedom, not power," he says,[2] "is the greatest good. That man is truly free who desires what he is able to perform, and does what he desires. This is my fundamental maxim. Apply it to childhood, and all the rules of education spring from it." The application of this principle of freedom leads to Rousseau's panegyric on childhood.[3] "Love childhood, indulge its sports, its pleasures, its delightful instincts. Who has not sometimes regretted that age when laughter was ever on the lips, and when the heart was ever at peace? Why rob these innocents of the joys which pass so quickly, of that precious gift which they cannot abuse? Why fill with bitterness the fleeting days of early childhood, days which will no more return for them than for you? Fathers, can you tell when death will call your children to Him? Do not lay up sorrow for yourselves by robbing them of the short span which nature has allotted to them. As soon as they are aware of the joy of life, let them rejoice in it, so that whenever God calls them they may not die without having tasted the joy of life."

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[1] p. 125, note.

[2] p. 48.

[3] Pp. 42-3. For similar eulogy on youth, see R. L. Stevenson's *Virginibus Puerisque.* 45

"What is to be thought, therefore, of that cruel education which sacrifices the present to an uncertain future, that burdens a child with all sorts of restrictions and begins by making him miserable, in order to prepare him for some far off happiness which he may never enjoy?"

"Now is the time, you say, to correct his evil tendencies; we must increase suffering in childhood, when it is less keenly felt, to lessen it in manhood. But how do you know that you can carry out all these fine schemes? . . . What a poor sort of foresight, to make a child wretched in the present with the more or less doubtful hope of making him happy at some future day . . .

"Mankind has its place in the sequence of things; childhood has its place in the sequence of human life, the man must be treated as a man, and the child as a child. Give each his place."

The aim of the early education of the child is to develop in him "a well-regulated liberty," an aim similar, as we shall see, to that of Montessori. Such liberty or freedom is possible only when the child's desires are confined within the limits of his powers. He must then be taught these

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limits; they are prescribed by the necessity in things and by his own weakness—"the child's liberty is restricted by his lack of strength."[1]

To attain liberty, education must act both positively and negatively, although it is the negative side that Rousseau mainly emphasises. The positive training consists in supplying the pupil with the strength he lacks so far as is required for freedom, not for power.[2] The negative aspect of education consists in bringing the pupil to realise that "freedom is the truth of necessity," that nature can only be commanded by obeying it. Rousseau recognises that the freedom of caprice is merely a form of servitude, and, as social injunctions are usually contradictory and social order capricious, he seeks to protect the unformed character of the child from the evils arising from such irregularity. Rousseau desires to habituate the pupil to right action, the first stage of the moral life, as Aristotle recognised—"Before he knows what goodness is he will be practising its chief lesson,"[3]—and such habituation can only be secured by the child's submission to the constant laws of nature, and not to the arbitrary admonition of social life. "Let him early find upon his proud neck the heavy yoke which nature has imposed upon us, the heavy yoke of necessity, under which every finite being must bow. Let him find this necessity in things, not in the caprices of man."[4]

It is no mere empty prejudice against social life that leads Rousseau to postpone the child's submission to social order, but the fact that such order does not possess the constancy of natural law. "There are two kinds of dependence; dependence on things, which is the work of nature, and dependence on men, which is the work of society. Dependence on things, being non-moral, does no injury to liberty and begets no vices; dependence on men, being out of order, gives rise to every kind of vice." [1] He, however, immediately adds: "If the laws of nations, like the laws of nature, could never be broken by any human power, dependence on men would become dependence on things, all the advantages of a state of nature would be combined with all the advantages of social life in the commonwealth. The liberty which preserves a man from vice would be united with the morality which raises him to virtue."

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[1] p. 49.

[2] p. 49.

[3] p. 55. Cf. p. 212: "By doing good we become good."

[4] p. 55.

The leading principle for the early education up to twelve years of age is consequently: "Keep the child dependent on things only," [2] the same principle as that implied in the self-corrective apparatus of the Montessori method. This dependence on things has as its correlate freedom from dependence on man; it is an a-moral and non-social education. "Therefore the education of the earliest years should be merely negative. It consists, not in teaching virtue or truth, but in preserving the heart from vice and from the spirit of error." [3] The chief maxim necessitated by this principle is: "Do not save time, but lose it." [4] "Exercise his body, his limbs, his senses, his strength, but keep his mind idle as long as you can." [5] In justification of this maxim Rousseau explains: "You are afraid to see him spending his years doing nothing. What! is it nothing to be happy, nothing to run and jump all day? He will never be so busy again all his life long. Plato, in his *Republic*, which is considered so stern, teaches the children only through festivals, games, songs, and amusements. It seems as if he had accomplished his purpose when he had taught them to be happy; and Seneca, speaking of the Roman lads in olden days, says, 'they were always on their feet, they were never taught anything which kept them sitting.' Were they any the worse for it in manhood? Do not be afraid, therefore, of this so-called idleness. What would you think of a man who refused to sleep lest he should waste part of his life? You would say, 'He is mad; he is not enjoying his life, he is robbing himself of part of it; to avoid sleep he is hastening to his death.' Remember that these two cases are alike, and that childhood is the sleep of reason."[1]

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[1] p. 49. [2] p. 49. [3] p. 57. [4] *Ibid.* [5] p. 58.

The importance of this negative education is implied in the statement that "the most dangerous period in human life lies between birth and the age of twelve;"[2] the length of treatment devoted to this period by Rousseau likewise testifies to its importance.

The principle of the negative education, involving the subordination of the child to the natural order and his freedom from the social order, is impossible of complete fulfilment. This Rousseau recognises.[3] "I think it is impossible to train a child up to the age of twelve in the midst of society, without giving him some idea of the relations between one man and another, and of the morality of human actions. It is enough to delay the development of these ideas as long as possible, and when they can no longer be avoided to limit them to present needs, so that he may neither think himself master of everything nor do harm to others without knowing or caring."

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[1] p. 71. Rousseau misinterprets Locke (*Emile*, p. 53) when he says: "Reason with children was Locke's chief maxim." What Locke intended was that children should be treated reasonably. Cf. *Thoughts concerning Education*, §§ 54, 81.

[2] p. 57. Contrast p. 193.

[3] p. 61.

The aim of education with Rousseau, quite as much as with Herbart, is morality,[1] and it is for the sake of developing in the child a stable moral character that he introduces the negative education. Applied to the moral life of the pupil it results in the discipline by natural consequences, a doctrine later advocated by Spencer.[2] "Children should never receive punishment as such," says Rousseau,[3] "it should always come as the natural consequence of their fault." And again,[4] "He should never act from obedience, but from necessity."

During the child's "long period of leisure" no direct moral lessons are to be given. Children are likewise not to be reasoned with on moral questions; for, as Rousseau recognises, no reason can be given for a truly moral act. This is evident from the moral lesson which Rousseau instances,[5] and from his formulation of the moral law,[6] which implies the same absoluteness as, and is expressed in terms almost identical with, that of Kant: "A good action is only morally good when it is done as such and not because of others."[7] The only moral maxim Rousseau would teach his pupil is "Never hurt anybody." Nor should we at this stage attempt to inculcate moral lessons indirectly through the teaching of fables. The pupils take the wrong morals out of the fables, Rousseau believes, or contra-suggestion decides their actions. "Men may be taught by fables; children require the naked truth."[8]

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[1] Cf. ideal with Sophy, "to play her part in the physical and moral order," p. 321.

[2] *Education*, p. 136 *et seq.*

[3] p. 63. [4] p. 53. [5] p. 54. [6] p. 68. [7] p. 69.

[8] p. 77. Cf. pp. 210-1 and Plato's view of fables. Also Rousseau's view of maxims, p. 201, "Philosophy in the form of maxims is only fit for the experienced. Youth should never deal with the general, all the teaching should deal with individual instances."

As a consequence of the concession stated above Rousseau has to give his pupil some training for social life, although the latter cannot yet appreciate social relationships. It would be mainly a training through imitation:[1] "At an age when the heart does not yet feel anything, you must make children copy the deeds you wish to grow into habits, until they can do them with understanding and for the love of what is good."

The negative education applied intellectually implies that there should be no verbal lessons:[2] the pupil should be taught by experience alone. Rousseau maintains that when we thus get rid of children's lessons we get rid of the chief cause of their sorrow. Reading he characterises[3] as the curse of childhood, whereas if the desire to know is awakened in the child he will learn of himself. "Present interest, that is the motive power, the only motive power that takes us far and safely:"[4] "We learn nothing from a lesson we detest."[5] Both in respect to subject-matter of reading and the motive power of interest Rousseau anticipates Herbart.

Rousseau also reckons the study of languages among the useless lumber of education.[6] Geography, instead of teaching the pupil what the world is like, is merely teaching the map: "He is taught the name of towns, countries, rivers which have no existence for him except on the paper before him."[7] It is a still more ridiculous error, in Rousseau's opinion, to set pupils at this stage to study history, for they are not able to understand the relations which constitute political action.

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[1] p. 68. Rousseau does not award to imitation the high place assigned to it by Plato. "The love of imitating," he says, "is well regulated by nature; in society it becomes a vice . . . Imitation has its roots in our desire to escape from ourselves. If I succeed in my undertaking, Emile will certainly have no such wish."

[2] p. 56. [3] p. 80. [4] p. 81. [5] p. 209.

[6] p. 73. [7] p. 74.

The positive education up to twelve years of age comprises physical exercises and the training of the senses. The physical education is modelled on that of Sparta, and is similar to the Gymnastic prescribed by Plato in the early education of the philosopher. "This was the education of the Spartans; they were not taught to stick to their books, they were taught to steal their dinners. Were they any the worse for it in after life? Ever ready for victory, they crushed their foes in every kind of warfare, and the prating Athenians were as much afraid of their words as of their blows."[1] In support of the training in gymnastics Rousseau cites the opinions of Montaigne and Locke.

The importance of physical condition for the moral and mental training of the child is frequently insisted on by Rousseau. It is, as with Plato, "the body for the sake of the soul." Rousseau's statements include: "A feeble body makes a feeble mind,"[2] which is but the negative counterpart of Locke's ideal—"A sound mind in a sound body." "All wickedness comes from weakness."[3] "The weaker the body, the more imperious its demands; the stronger it is, the better it obeys."[4] "Would you cultivate your pupil's intelligence, cultivate the strength it is meant to control. Give his body constant exercise, make it strong and healthy, in order to make him good and wise; let him work, let him do things, let him run and shout, let him be always on the go; make a man of him in strength, and he will soon be a man of reason."[5] "As he grows in health and strength he grows in wisdom and discernment. This is the way to attain to what is generally incompatible,

[1] p. 84. [2] p. 21. [3] p. 33. [4] p. 21. [5] p. 82.

strength of body and strength of mind, the reason of the philosopher and the vigour of the athlete." [1]

The other aspect of the positive education up to twelve years of age is the training of the senses.[2] Man's first reason is, in Rousseau's opinion, a reason of sense experience. Our first teachers are our feet and hands and eyes. "To substitute books for them does not teach us to reason, it teaches us to use the reason of others rather than our own; it teaches us to believe much and know little." [3] Training the senses does not mean, for Rousseau, practising formal exercises in their use; it means judging by their means in concrete situations similar to those the pupil will meet with in actual life, and is consequently not open to the objections which have frequently to be urged on psychological grounds against doctrines of sense training.

The first sense Rousseau would train would be, as in the Montessori system, that of touch. This he would isolate, and train by means of games in the dark. "Although touch is the sense oftenest used, its discrimination remains coarser and more imperfect than that of any other sense, because we always use sight along with it; the eye perceives the thing first, and the mind almost always judges without the hand. On the other hand, discrimination by touch is the surest just because of its limitations; for extending only so far as our hands can reach, it corrects the hasty judgments of the other senses."

For visual training Rousseau proposes such tasks as determining whether a ladder is long enough to reach the top of a tree, whether a plank is long enough to bridge a

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[1] p. 84. Cf. also pp. 89, 90. Cf. Plato, *Timaeus*, § 86: "No man is voluntarily bad; but the bad become bad by reason of an ill disposition of the body, and bad education."

[2] Cf. pp. 97-122.

[3] p. 90.

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stream, the length of line required for fishing, or the length of rope to construct a swing between two trees. In running races the distances are made unequal, and the pupil has to exercise his judgment in estimating the lengths of the various courses so that he may choose the shortest. "Of all the senses," Rousseau remarks,[1] "sight is that which we can least distinguish from the judgment of the mind; so it takes a long time to learn to see. It takes a long time to compare sight and touch and to train the former sense to give a true report of shape and distance."

On similar lines Rousseau proposes means of training the other senses, hearing, taste, and smell.

The principle which governs this sense-training is enunciated later [2] by Rousseau in dealing with the third phase of education: "We must learn to confirm the experiences of each sense by itself, without recourse to any other, though we have been in the habit of verifying the experience of one sense by that of another."

Throughout this period Rousseau is not educating Emile but preparing him for education;[3] and the art of teaching at this stage is to be able "to lose time and save it."[4] The result of the training of the pupil on these lines is thus summarised:[5] "His ideas are few but precise, he knows nothing by rote but much by experience. If he reads our books worse than other children, he reads far better in the book of nature; his thoughts are not in his tongue but in his brain; he has less memory and more judgment; he can only speak one language, but he understands what he is saying, and if his speech is not so good as that of other children his deeds are better." "He has reached the perfection of childhood; he has lived the life of a child; his progress has not been bought at the price of his happiness; he has gained both." [1]

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[1] p. 107.
[2] p. 167.
[3] Cf. p. 297. The succeeding phase of education from twelve to fifteen years of age is also included in the period of preparation.
[4] p. 106.
[5] pp. 124-5.

The succeeding phase of education, covering the years twelve to fifteen, is the transition stage between childhood and adolescence. The previous period of education dealt with the necessary, this deals with the useful, and the succeeding stage with what is fitting or right.[2] "Time was long during early childhood; we only tried to pass our time for fear of using it ill; now it is the other way; we have not time enough for all that would be of use." [3]

The knowledge to be acquired must consequently be carefully selected; it must suit the pupil's present needs. "What is the use of that? This is the sacred formula." [4] The sciences rejected at a previous stage must now be reviewed in the light of this principle of utility, and to those which stand the test Emile is to be introduced. "It is not your business," however, according to Rousseau,[5] "to teach him the various sciences, but to give him a taste for them and methods of learning them when this taste is more mature." The method which Rousseau has in mind is that which has come to be known as the heuristic method and is thus formulated: "Let him know nothing because you have told him, but because he has learnt it for himself. Let him not be taught science, let him discover it." [6] "You have not got to teach him truths so much as to show him how to set about discovering them for himself." [7] The pupil is to learn in a practical fashion by rough experiments with apparatus self-made and self-invented, for as Rousseau succinctly states, "The scientific atmosphere destroys science,"[1] and as he paradoxically expresses his method, "Among the many short cuts to science, we badly need some one to teach us the art of learning with difficulty."[2]

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[1] p. 126.
[2] Cf. p. 130.
[3] p. 134.
[4] p. 142.
[5] p. 135.
[6] p. 131.
[7] p. 168.

Emile must also learn a trade, less for the learning of it than for overcoming the prejudices which otherwise he would acquire.[3] The learning of it is not, however, without significance in the pupil's development, for as Rousseau states,[4] "If instead of making a child stick to his books I employ him in a workshop, his hands work for the development of his mind. While he fancies himself a workman he is becoming a philosopher." Emile's trade must be one which does not lead to fortune but makes him independent of her, and the trade which most completely satisfies Rousseau's demands is that of the carpenter. "It is clean and useful; it may be carried on at home; it gives enough exercise; it calls for skill and industry, and while fashioning articles for everyday use, there is scope for elegance and taste."[5] Rousseau also looks favourably on the making of scientific instruments; but no matter which trade is adopted Emile "must work like a peasant and think like a philosopher, if he is not to be as idle as a savage." The great secret of education, Rousseau adds,[6] is to use exercise of mind and body as relaxation one to the other.

✓ The general principle governing the teaching at this stage is that of learning by doing. "Teach by doing whenever you can, and only fall back upon words when doing is out of the question."[7] "Let all the lessons of young people take the form of doing rather than talking; let them learn nothing from books which they can learn from experience."[1] An exception is made in the case of Robinson Crusoe, the greatest school book ever written. "This is the first book Emile will read; for a long time it will form his whole library and it will always retain an honoured place. It will be the text to which all talks about natural science are but the commentary."[2]

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[1] p. 139.
[2] *Ibid.*
[3] Contrast with Plato's view of the manual arts.
[4] p. 140.
[5] p. 163.
[6] p. 165.
[7] p. 144.

Thus far the pupil has been as much as possible dependent on things; "the child observes things till he is old enough to study men."[3] The reason which Rousseau advances for this is:[4] "I have not spoken to my pupil about men; he would have too much sense to listen to me. His relations to other people are as yet not sufficiently apparent to him to enable him to judge others by himself. The only person he knows is himself, and the knowledge of himself is imperfect. But if he forms few opinions about others, those opinions are correct. He knows nothing of another's place, but he knows his own and keeps to it. I have bound him with the strong cord of necessity, instead of social laws, which are beyond his knowledge. He is still little more than a body; let us treat him as such." No sooner, however, has Rousseau stated this than—contrary to his general principle enunciated in the statement,[5] "Why urge him to the studies of an age he may never reach, to the neglect of those studies which meet his present needs"—he anticipates the later stage of education and would prepare Emile for the understanding of the requirements of social life upon which he will then enter. Instead of straightway demonstrating to Emile the reciprocal duties of men on the moral side, Rousseau would direct Emile's attention to the industrial and mechanical arts which call for mutual co-operation. "Given ten men, each of them has ten different requirements. To get what he needs for himself each must work at ten different trades; but considering our different talents, one will do better at this trade, another at that. Each of them, fitted for one thing, will work at all, and will be badly served. Let us form these ten men into a society, and let each devote himself to the trade for which he is best adapted, and let him work at it for himself and for the rest. Each will reap the advantage of the other's talents, just as if they were his own talent, and thus all the ten, well provided for, will still have something to spare for others. This is the plain foundation of all our institutions."[1]

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[1] p. 214.
[2] p. 147.
[3] p. 418.
[4] p. 150.
[5] p. 141.

The explanation offered here of the origin of the social state is in some respects similar to that proposed by Plato and by Aristotle. It is based on an initial inequality amongst the natural talents of men, and it is proved to be advantageous. While Plato and Aristotle regard the existence of the social state as natural and necessary to man, Rousseau maintains that so long as only bodily needs are recognised man is self-sufficing; it is only with the desire for superfluity that the need for the division of labour arises.[2] Plato and Aristotle nevertheless affirm that man is not individually self-sufficing; and it is the needs of his nature, not merely the demand for luxuries, that compel him to be a member of a society. How far removed Rousseau's conception of society is from an unrestricted individualism may, however, be inferred from his view of the inheritance of property; all wealth, he considers, should be vested in the community and every man owes society his personal service.[3]

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[1] p. 156.

[2] p. 148. Cf. "Social Contract."

[3] Cf. p. 158, paragraph ending "Man in society is bound to work; rich or poor, weak or strong, every idler is a thief."

Through the economic dependence of man on man Rousseau would bring his pupils to realise the necessity for the social order; the explanation of the moral relations he would do his best to postpone till the pupil had arrived at the adolescent stage of development; "the very name of history is unknown to him, along with metaphysics and morals."[1]

"Having entered into possession of himself, our child is now ready to cease to be a child. He is more than ever conscious of the necessity which makes him dependent on things. After exercising his body and his senses you have exercised his mind and his judgment. Finally, we have joined together the use of his limbs and of his faculties. We have made him a worker and a thinker; we have now to make him loving and tender-hearted, to perfect reason through feeling."[2] Such is the *résumé* Rousseau gives of the education of Emile up to fifteen years of age.

4 To adolescence, "the crown and coping-stone of education," Rousseau devotes the fourth book of the *Emile.*[3] The period when education is usually finished is, he insists, just the time to begin; it is our second birth, for "we are born, so to speak, twice over; born into existence, and born into life; born a human being, and born a man."[4] In childhood the pupil, bound with the strong cord of necessity, was required to study himself in relation to things; during adolescence he must begin the study of himself in relation to his fellow-men. This is the critical

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[1] p. 170.

[2] p. 165.

[3] Cf. p. 278: "Works on education are crammed with wordy and unnecessary accounts of the imaginary duties of children; but there is not a word about the most important and most difficult part of their education, the crisis which forms the bridge between the child and the man."

[4] p. 172.

stage in the pupil's development and education. "The way childhood is spent is no great matter; the evil which may find its way is not irremediable, and the good which may spring up might come later. But it is not so in those early years when a youth really begins to live. This time is never long enough for what there is to be done, and its importance demands unceasing attention; this is why I lay so much stress on the art of prolonging it."[1]

We have now reached the moral order, for the appreciation of which the previous education ~~has been but the prepara~~tion. The attitude which at this stage he would strive to get Emile to adopt, Rousseau describes in these terms: "I would have you so choose the company of a youth that he should think well of those among whom he lives, and I would have you so teach him to know the world that he should think ill of all that takes place in it. Let him know that man is by nature good, let him feel it, let him judge his neighbour by himself; but let him see how men are depraved and perverted by society; let him find the source of all their vices in their preconceived opinions; let him be disposed to respect the individual, but to despise the multitude; let him see that all men wear almost the same mask, but let him also know that some faces are fairer than the mask that conceals them."[2]

The studies—history, etc.—which were withheld at the earlier age as premature are now introduced. "What then is required for the proper study of men? A great wish to know men, great impartiality of judgment, a heart sufficiently sensitive to understand every human passion, and calm enough to be free from passion. If there is any time in our life when this study is likely to be appreciated, it is this that I have chosen for Emile; before this time men would have been strangers to him; later on he would have been like them."[1]

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[1] p. 193.   [2] p. 198.

This is consequently the time to introduce the pupil to history; "with its help he will read the hearts of men without any lessons in philosophy; with its help he will view them as a mere spectator, dispassionate and without prejudice; he will view them as their judge, not as their accomplice or their accuser."[2]

Of the difficulties in turning history to moral account Rousseau is fully conscious. The first is that history records the evil rather than the good; "it is revolutions and catastrophes that make history interesting; so long as a nation grows and prospers quietly in the tranquillity of a peaceful government, history says nothing . . . History only makes them famous when they are on the downward path . . . We only hear what is bad; the good is scarcely mentioned. Only the wicked become famous, the good are forgotten or laughed to scorn, and thus history, like philosophy, is for ever slandering mankind."[3] In "Crabbed Age and Youth" R. L. Stevenson echoes with a quite unfeigned satisfaction the same complaint.

A further difficulty which Rousseau recognises is that "history shows us actions rather than men, because she only seizes men at certain chosen times in full dress; she only portrays the statesman when he is prepared to be seen; she does not follow him to his home, to his study, among his family and his friends; she only shows him in state; it is his clothes rather than himself that she describes."[4] Against the use of the figures of history as moral examples for the instruction of youth Morley has protested in the following terms: "The subject of history is not the heart of man but the movements of society. Moreover the oracles of history are entirely dumb to one who seeks from them maxims for the shaping of daily conduct, or living instruction as to the motives, aims, caprices, capacities of self-restraint, self-sacrifice of those with whom the occasions of life bring us into contact." Even this objection was foreseen by Rousseau: "History in general is lacking because it only takes note of striking and clearly marked facts which may be fixed by names, places and dates; but the slow evolution of these facts, which cannot be noted in this way, still remains unknown. We often find in some battle, lost or won, the ostensible cause of a revolution which was inevitable before this battle took place. War only makes manifest events already determined by moral causes, which few historians can perceive."[1]

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[1] p. 206. [2] p. 199. [3] pp. 199-200.

[4] p. 202. Cf. Thackeray's introduction to *Esmond.*

The dilemma with which we are confronted in attempting to employ history as a means of moral instruction is that the more scientifically history is treated the more is it regarded as a history of great movements and general tendencies, a matter of principles rather than of personalities, and consequently the less adapted does it become to provide moral examples; whereas, even assuming that the historical heroes are worthy moral examples, to secure biographical material for moral lessons we are compelled to contort the presentation of history. The choice is therefore between the incompatible alternatives, history or moral instruction.

These difficulties limit the field of choice, and Rousseau is reduced to commending the ancient writers of historical biographies, especially Plutarch, the modern biographies being too conventional.[2] The spectacles of history portrayed in such biographies are to serve the pupil sometimes as warnings, sometimes as forms of "catharsis," as the vicarious expression of his own passions; thus "the play of every human passion offers lessons to any one who will study history to make himself wise and good at the expense of those who went before."[1] The examples of history are thus not to be regarded as models for imitation, "for he who begins to regard himself as a stranger will soon forget himself altogether."[2]

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[1] p. 201.

[2] p. 202.

In spite of all the care exercised on the training of the pupil it must needs be that offences come. Their correction, Rousseau suggests, should be secured indirectly. "The time of faults is the time for fables;"[3] for "when we blame the guilty under the cover of a story we instruct without offending him." The moral of the fable should accordingly not be formulated. "Nothing is so foolish and unwise as the moral at the end of most fables; as if the moral was not, or ought not to be, so clear in the fable itself that the reader cannot fail to perceive it."

Passing from the subject of morality, Rousseau proceeds to consider the religious education of the adolescent youth. Till now Emile has scarcely heard the name of God:[4] "At fifteen he will not even know that he has a soul, at eighteen even he may not be ready to learn about it."[5] Rousseau does not propose to attach Emile to any sect, but aims at giving him the training to choose for himself according to the right use of his own reason. The doctrines of which Rousseau approves are those formulated in "The Creed of a Savoyard Priest."[6] Rousseau does not explain why a creed is advisable. It may be, as a modern writer puts it:[7] "Definitions, formulae (some would add, creeds) have their use in any society, in that they restrain the ordinary unintellectual man from making himself a public nuisance with his private opinions."

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[1] p. 205. [2] *Ibid.* [3] p. 210.
[4] p. 216. [5] p. 220. [6] pp. 228-278.
[7] Quiller-Couch, *On the Art of Writing*, p. 15.

The philosophy on which this religious creed is based is a form of intuitionalism just as Rousseau's ethical doctrine is intuitional, the dictates of conscience being in accordance with the law of nature.[1] Rousseau accordingly appeals to the evidence of the Inner Light in support of the truths which he regards as self-evident, and which he cannot honestly refuse to believe. He would also admit as true all that seemed to follow from these.

The first indubitable fact is his own existence; but whereas Descartes expressed his first principle in the form "Cogito ergo sum" Rousseau's principle would have to be formulated "Sentio ergo sum." As on Descartes' first principle depended the necessary interdependence of the idea of the self as conscious and of the self as existent, so Rousseau's principle gives him assurance for assuming his own existence and that of the universe.[2] In addition to perceiving Rousseau finds himself possessed of the active faculty of judging, and notes that sensations cannot account for ideas of relation;[3] in recognising such ideas of relation or "objects of a higher order" he anticipates much of the later criticism of sensationalism.

Descartes' dualism of mind and matter is, in Rousseau's opinion, unsatisfactory—a view which has been supported by later criticism.[4] To these two concepts must be added that of motion: "With the help of dice Descartes made heaven and earth; but he could not set his dice in motion, nor start the action of his centrifugal force without the aid of rotation.”[1] Motion is, according to Rousseau, of two forms, either transmitted or spontaneous; and transmitted motion must ultimately be referred to an origin possessing the power of spontaneity. Matter itself cannot possess this power, so the motion in the universe must be referred to an active will; “there is no real action without will.”[2] This is the line of thought which leads Rousseau to his first principle. “I believe,” he says, “that there is a will which sets the universe in motion and gives life to nature. This is my first dogma, or the first article of my creed.”[3] *

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[1] Cf. p. 249: "He who obeys his conscience is following nature."

[2] p. 232.

[3] p. 233.

[4] Cf. Norman Smith, *Studies in Cartesian Philosophy*.

“If matter in motion points me to a will, matter in motion according to fixed laws points me to an intelligence; 2 that is the second article of my creed.”[4] To the question, Where does the Being possessing this intelligence reside? The Idea Rousseau replies: “Not merely in the revolving heavens, nor in the sun which gives us light, not in myself alone, but in the sheep that grazes, the bird that flies, the stone that falls, and the leaf blown by the wind.” “This Being who wills and can perform His will, this Being active through His own power, this Being who moves the universe and orders all things, is what I call God.”[5] This second article of Rousseau’s creed involves what is known as the teleological argument for the existence of God—the argument from design or purpose in nature. It forms one of the three arguments for the existence of God of which Kant in his *Critique of Pure Reason* disposed. The chief objections to it are that all we can legitimately demand to account for the apparent design in nature is not an absolute cause but only one adequate to produce the special effect in question. It further involves the assumption that because our thinking demands a cause for this design, therefore an object corresponding to such a cause must exist; on such a transition from the necessity of the idea of God to His existence the ontological argument for God's existence rests, and is vitiated thereby.

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[1] p. 235. [2] *Ibid.* [3] p. 236. [4] p. 237. [5] p. 239.

After exhausting the attributes of God, Rousseau turns to consider the nature of man and is led to formulate the third article of his creed, namely, the freedom of the will: "Man is free to act, and as such he is animated by an immaterial substance; that is the third article of my creed."[1] 3 From these three articles, he maintains, the others can be deduced.

Rousseau's proof of the freedom of the will is interesting in so far as he relates it to the freedom of the intelligence. "When you ask me what is the cause which determines my will, it is my turn to ask what cause determines my judgment; for it is plain that these two causes are but one; and if you understand clearly that man is active in his judgments, that his intelligence is only the power to compare and judge, you will see that his freedom is only a similar power or one derived from this; he chooses between good and evil as he judges between truth and falsehood; if his judgment is at fault, he chooses amiss. What then is the cause that determines his will? It is his judgment. And what is the cause that determines his judgment? It is his intelligence, his power of judging; the determining cause is in himself. Beyond that, I understand nothing."[2] Had Rousseau been able to carry his analysis further, he would have found the freedom of the intelligence and of the will to lie in man's spiritual nature and its characteristic creative activity.

Having dealt with the existence of God and the freedom of the will, Rousseau's treatment of religious beliefs would not be complete without reference to the subject of Immortality. The immortality of the soul he deduces first from the need of an infinite time to redress the wrongs of this life, to harmonise happiness with duty, the argument later employed by Kant in his *Critique of Practical Reason.*[1] "Had I no other proof of the immaterial nature of the soul," he says,[2] "the triumph of the wicked and the oppression of the righteous in this world would be enough to convince me." The further argument which he presents is based on the essentially diverse nature of soul and body,[3] and as he cannot conceive how the soul can die, he presumes that it does not die, and as he finds this assumption consoling and in itself not unreasonable, he sees no reason why he should refuse to accept it.

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[1] p. 243. [2] p. 243.

Rousseau has recorded the creed of the Savoyard Priest not as a rule for the sentiments which should be adopted in matters of religion, but as an example of the way in which the pupil should be reasoned with. "So long," he says, "as we yield nothing to human authority, nor to the prejudices of our native ~~land, the light of reason alone, in~~ a state of nature, can lead us no further than to natural religion; and this is as far as I should go with Emile. If he must have any other religion, I have no right to be his guide; he must choose for himself."[4]

The creed of the Savoyard Priest is frequently regarded as an unwarranted interpolation in the *Emile*, but a review of Rousseau's religious doctrines as expressed in this section of his work is necessary to make intelligible, or to justify, the postponement of religious instruction till the adolescent stage. If it is necessary for Emile to have an intelligent appreciation of the proofs of God's existence, of freedom and of immortality, then it is not to be wondered at that at fifteen he need not have heard the name of God nor even known that he had a soul. Rousseau has evidently ignored the fact that he is legislating for the ordinary man who takes his creed on trust and does not usually trouble to justify it on rational grounds.

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[1] For criticism of argument see Caird, *The Critical Philosophy of Kant*, vol. ii, pp. 302-6.

[2] p. 245.

[3] Cf. Plato, *Gorgias*, § 524: "Death is the separation from one another of two things, soul and body. And after they are separated they retain their several natures as in life."

[4] p. 278.

In addition to instruction in Ethics and Religion, Rousseau would prescribe for the adolescent the study of Aesthetics, the philosophy of the principles of taste. Rousseau's account of these principles is somewhat vague; but this is not surprising when we remember the state of the development of the science of the beautiful at the time he wrote. The simplicity of taste which goes straight to the heart is, in Rousseau's opinion, only to be found in the classics,[1] and these Rousseau would employ for purposes of instruction in aesthetics as he previously recommended them for instruction in morals.

During the critical period of adolescence Emile's physical training is not neglected. He is required to engage in an occupation which keeps him busy, diligent, and hard at work, an occupation which he may become passionately fond of, one to which he will devote himself entirely. For this purpose Rousseau recommends the chase,[2] although he does not even profess to justify the cruel passion of killing; it is enough that it serves to delay a more dangerous passion.

Rousseau believes it necessary to prescribe for Emile direct moral exhortation on chastity, although he admits that he has had to abandon the task of giving examples of

[1] Cf. p. 309.

[2] p. 285.

the form which the lessons should take. The general plan of sexual instruction he outlines in the following passage:[1] "If instead of the empty precepts which are prematurely dinned into the ears of children, only to be scoffed at when the time comes when they might prove useful, if instead of this we bide our time, if we prepare the way for a hearing, if we then show him the laws of nature in all their truth, if we show him the sanction of these laws in the physical and moral evils which overtake those who neglect them, if while we speak to him of this great mystery of generation, we join to the idea of the pleasure which the author of nature has given to this act the idea of the duties of faithfulness and modesty which surround it, and redouble its charm while fulfilling its purpose; if we paint to him marriage, not only as the sweetest form of society, but also as the most sacred and inviolable of contracts, if we tell him plainly all the reasons which lead men to respect this sacred bond, and to pour hatred and curses upon him who dares to dishonour it; if we give him a true and terrible picture of the horrors of debauch, of its stupid brutality, of the downward road by which a first act of misconduct leads from bad to worse, and at last drags the sinner to his ruin; if, I say, we give him proofs that on a desire for chastity depend health, strength, courage, virtue, love itself, and all that is truly good for man—I maintain that this chastity will be so dear and so desirable in his eyes, that his mind will be ready to receive our teaching as to the way to preserve it: for so long as we are chaste we respect chastity; it is only when we have lost this virtue that we scorn it."

The sexual instinct must be sublimated by re-directing it to the affection for an ideal of true womanhood which

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[1] p. 289.

Rousseau would picture for Emile with all the eloquence and emotion he could compass, and this ideal he would personify and assign to it a name, the name Sophy. Before, however, introducing Emile to Sophy, Rousseau considers it necessary to describe the education in accordance with which the wife of Emile should be trained.

Emile's education is not even yet complete. Between his betrothal to Sophy and his marriage he is required to travel, the object being that he should get to know mankind in general.[1]

Greek philosophy constantly distinguished between φύσει and νόμῳ, that is, between the natural and the conventional. This opposition aptly distinguishes the education of Emile from that of Sophy. Emile's is the natural education; Sophy's the conventional. "What will people think, is the grave of a man's virtue and the throne of a woman's."[2] The "double standard" is by Rousseau consciously adopted and maintained.

This difference in education arises not from a difference in natural endowment, since, as Rousseau admits, but for her sex a woman is a man;[3] it results from a difference in their life's aims;[4] "a man seeks to serve, a woman seeks to please; the one needs knowledge, the other taste." While the yoke the boy has to be trained to bear is that of necessity, that of the girl is propriety. Whereas liberty was the watchword of the boy's education, restraint is that of the girl's. While the boy's religion was to be determined in accordance with reason, that of the girl is ruled by authority. We may say of Rousseau what Johnson said of Milton: "He thought women made only for obedience, and man only for rebellion."

[1] p. 415. [2] p. 328. [3] p. 321. [4] p. 339.

Such antitheses would lead us to infer that the education of the woman should complement that of the man. Rousseau, however, concludes that as woman is made for man's delight,[1] her education should be planned in relation to, and be made subservient to, that of man. "To be pleasing in his sight, to win his respect and love, to train him in childhood, to tend him in manhood, to counsel and console, to make his life pleasant and happy, these are the duties of women for all time, and that is what she should be taught while she is young."[2]

All feminine weaknesses are regarded by Rousseau as natural, and consequently as right, and in the education of the girl the educator should avail himself of these; "Cunning is a natural gift of woman, and so convinced am I," says Rousseau,[3] "that all our natural gifts are right, that I would cultivate this among others, only guarding against its abuse." As nature is thus on the educator's side, habit is all that is needed in a girl's education.

In accordance with this principle we find that as the girl is naturally averse from learning to read and write, she should not be required to learn these subjects till she sees the use of them, and expresses the desire to learn them;[4] her fondness for sewing should be encouraged and lead to cutting out, embroidery, and lace-making; the educator should avail himself of the connection between taste in dress and drawing to enlist the pupil's interest in this art. Cyphering, Rousseau suggests, should be studied before reading and writing, and should be presented concretely. The principle of method to be followed is: "Show the sense of the tasks you set your little girls, but keep them busy."

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[1] p. 332. [2] p. 328. [3] p. 334.

[4] Rousseau anticipates the Montessori system in suggesting that a pupil might learn to write before learning to read. Cf. p. 332.

The difference between Rousseau's treatment of the teaching of religion to girls and of the teaching of the same subject to boys is strikingly characteristic of the general antithesis. As they were considered incapable of forming any true idea of religion, Rousseau concluded that that was sufficient reason for the postponement of the religious teaching of boys till the adolescent period; from the same premise he infers that we cannot speak of religion too soon to little girls, "for if we wait till they are ready for a serious discussion of these deep subjects, we should be in danger of never speaking of religion at all." [1]

Rousseau's treatment of the education of Sophy is usually contrasted unfavourably with his treatment of Emile's education; but the religious teaching outlined in Book V is more generally suitable and profitable than the somewhat ambitious scheme prescribed for Emile. "When you teach religion to little girls," he says,[2] "never make it gloomy or tiresome, never make it a task or a duty, and therefore never give them anything to learn by heart, not even their prayers ... It does not matter that a girl should learn her religion young, but it does matter that she should learn it thoroughly, and still more that she should learn to love it." He protests against teaching religion by means of a catechism: "The answers are in the child's mouth a lie, explaining what he does not understand, and affirming what he cannot believe." The faith that Rousseau would have taught to girls is contained in the statement:[3] "To know that there is a judge of human fate, that we are all His children, that He bids us all be just, He bids us love one another, He bids us be kindly and merciful, He bids us keep our word with all men, even with our enemies and His; we must know that the apparent

[1] p. 340. [2] p. 341. [3] p. 344.

happiness of this world is naught; that there is another life to come, in which this Supreme Being will be the rewarder of the just and the judge of the unjust." Sophy's religion is thus reasonable and simple, with few doctrines and fewer observances.[1]

Incidentally the other subjects required to complete a girl's education are indicated by Rousseau in the passage:[2] "Women are no strangers to the art of thinking, but they should only skim the surface of logic and metaphysics. Sophy understands readily, but she soon forgets. She makes most progress in the moral sciences and aesthetics; as to physical science she retains some vague idea of the general laws and order of this world."

Two contrasted and almost contradictory schemes of education have been presented by Rousseau; but for individuals with a similar natural endowment who, although their life aims are different, must nevertheless live together, a fitting education would doubtless be a compromise between the two. The rational system of training Emile must be tempered by the somewhat irrational treatment proposed for Sophy if they are to be educated for each other. Although such a modification may be necessary for practical purposes, the firmness with which Rousseau has outlined the contrasts has caused the *Emile* to be arresting and given it a permanent place in educational literature.

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[1] p. 359.

[2] p. 389.

CHAPTER IX

PESTALOZZI

AMONG the great educators Pestalozzi presents a sorry figure; he appears as a man afflicted with new ideas which he found himself unable to formulate or to put effectively into practice. This he was himself the first to confess. In his *Swansong* he admits:[1] "My lofty ideals were preeminently the product of a kind, well-meaning soul, inadequately endowed with the intellectual and practical capacity which might have helped considerably to further my heartfelt desire. It was the product of an extremely vivid imagination, which in the stress of my daily life proved unable to produce any important results." Thus a worse expounder of his own doctrines could hardly be imagined than Pestalozzi himself. In one work he describes his educational ideal in the form of a romance; in another, he is, as Herbart says,[2] "metamorphosed into a pedantic drillmaster in arithmetic, pleased with himself for having filled a thick book with the multiplication table." The production of a complete and consistent system would be utterly incompatible with the nature and life of Pestalozzi; he might nevertheless have claimed, as Bacon did, to have rung the bell that called the other wits together, for not only were the reforms of practical educationists in almost every country in Europe inspired by him, but Herbart, Fichte and Froebel also came directly under his influence.

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[1] *Pestalozzi's Educational Writings,* edited by J. A. Green, p. 288.

[2] Cf. Eckoff's translation of Herbart's *A B C of Sense-Perception and Minor Pedagogical Works,* p. 52.

Had Pestalozzi been required to characterise briefly his conception of education he would doubtless have designated it an education according to nature. This characterisation is, however, not decisive, for it may connote the most diverse and even contrary views, just as by Comenius it was employed to justify the most varied didactical practices. One cause of this is the ambiguity of the term "nature." Nature may be regarded either from a materialistic or from an idealistic standpoint; we may evaluate the higher in terms of the lower or interpret the lower by means of the higher. According to the former interpretation man may be regarded as essentially one with the brutes, according to the latter as participating in the divine. Pestalozzi undoubtedly adopts the idealistic standpoint. Thus in *How Gertrude Teaches Her Children* he writes:[1] "Man will only become man through his inner and spiritual life. He becomes through it independent, free and contented. Mere physical nature leads him not hither. She is in her very nature blind; her ways are ways of darkness and death. Therefore the education and training of our race must be taken out of the hands of blind sensuous nature, and the influence of her darkness and death, and put into the hands of our moral and spiritual being, and its divine, eternal, inner light and truth." In the *Swansong* he further explains:[2] "Making the methods of education conform to nature's laws is at bottom nothing but bringing them into harmony with the indestructible characteristics of that eternal spark of Divinity which is always in conflict with our lower nature."

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[1] English trans. by L. E. Holland and F. C. Turner, pp. 160-1.

[2] *Pestalozzi's Educational Writings*, ed. by J. A. Green, p. 287.

With Pestalozzi, however, education according to nature is not synonymous with leaving education to nature and discipline to natural consequences. It may be questioned whether this conception embracing merely the uncontrolled and undirected influences on the pupil of nature and of life should be regarded as education at all, since to be precise the term "education" must be restricted to the conscious selection and arrangement of the influences which affect the child. Pestalozzi fully recognises this; he speaks of instruction *helping* nature to develop in her own way, and of *adapting* the course of nature to the aim of education.[1] While he believes in "taking the cue" from nature in regard to the teaching process, he rejects the wasteful "trial and error" method of nature in favour of a methodical and uniform progress. Thus he says:[2] "All that you carelessly leave to outer blind nature sinks. That is true of lifeless nature as of living. Wherever you carelessly leave the earth to nature, it bears weeds and thistles. Wherever you leave the education of your race to her, she goes no further than a confused impression on the senses, that is not adapted to your power of comprehension, nor to that of your child, in the way that is needed for the best instruction." In dealing with the acquisition of skill he accordingly affirms:[3] "The art of instruction must take the cultivation of our race out of the hands of Nature, or rather from her accidental attitude towards each individual, in order to put it in the hands of knowledge, power and methods which she has taught us for ages, to the advantage of the race."

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[1] *How Gertrude Teaches*, pp. 26, 163.

[2] p. 161.

[3] p. 174. Cf. also pp. 187, 190.

Pestalozzi also assumes that an extension of the natural process is not inconsistent with his ideal of an education according to nature or in conformity to nature. Thus he states:[1] "The elementary method limits itself to employ the impressions which nature puts at random before the child's senses, but extends this natural process along definite lines adapted to his capacities and requirements." It is in this distinction between what is natural and what is conformable to nature that Pestalozzi's advance on Rousseau is most evident; it likewise justified Pestalozzi in organising "sequences of educational exercises which in all branches of human learning and activity should start with the very simplest, and proceed in continuous and unbroken gradation from easy to more difficult, keeping step with the growth of the pupil's powers, taking their cue from him, always stimulating him, never causing weariness or exhaustion."[2]

Inspired by the political writings of Rousseau, Pestalozzi made the welfare of the people his vocation, especially the welfare of the poor,[3] and it was his zeal, not for religion, but for social reform that instigated him to dedicate himself wholeheartedly to their service and amelioration. "He did not seek the wreath of merit in your mansions," writes Herbart,[4] "but in their hovels." While this standpoint narrowed his outlook, it compelled him to concentrate his efforts on the essential and fundamental requirements of education, and thus enabled him to achieve at least in part what Comenius desired, but by reason of his preoccupation with the teaching of languages, failed to attain. The economic pressure which weighed heavily on Pestalozzi and on the orphans under his charge necessitated the disentanglement of the essential from the multitudinous demands of life and of education, and "as the most pressing needs are the most universal,"[1] Pestalozzi was thus led to devise and formulate a universal system of elementary instruction.

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[1] *Swansong, Pestalozzi's Educational Writings*, p. 294.

[2] *Ibid.*, p. 283.

[3] Cf. Fichte, *Reden an die deutsche Nation*, Neunte Rede.

[4] Eckoff's trans. of *Herbart's Minor Pedagogical Works*, p. 37.

Elaborating the idea that the most pressing needs are the most universal, Herbart reviewing Pestalozzi's *How Gertrude Teaches Her Children* observes:[2] "Without doubt the most necessary instruction must be that which teaches man what he most needs to know. Now, what is needful to us is needful either to our physical or our moral nature. We need it either as sensuous beings to enable us to live or we need it as beings in the social relations of citizenship, family life, and so forth, in order that we may know and do our duty. Agriculture, manufacturing, commerce, and all other gainful art and science pertain in the first class; religion, ethics, notions of civic rights and obligations belong to the second."

While in his later writings Pestalozzi was inclined to regard the requirements of education as three in number, the training of the hand, the head and the heart, Herbart's analysis faithfully represents the aspects of education in Pestalozzi's earlier works. The ideal education, in Pestalozzi's estimation, consequently comprised a general introduction to the various forms of handicraft and to the simple social relations, an ideal which he sought to realise in his earliest practical efforts at Neuhof in Switzerland, and which in *Leonard and Gertrude*[3] he images in the form of a romance.

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[1] *Herbart's Minor Pedagogical Works*, p. 36.

[2] *Ibid.*, p. 39.

[3] English translation (abridged) by Eva Channing. Cf. also *Pestalozzi's Educational Writings*, edited by J. A. Green, pp. 32-53.

Leonard and Gertrude describes how, mainly by means of education, the regeneration of a small community was effected by the noble efforts of a pious woman, the wife of a village mason in humble circumstances. In the village of Bonnal the home of Leonard becomes the model educational institution, and Gertrude, the mother of the children, the ideal educator. This home-education represents Pestalozzi's ideal,[1] and it was only the circumstances in which he laboured, the education of the orphaned children of the Napoleonic wars having been thrust upon him, that compelled him in practice to adopt class-teaching methods. These he regarded as a necessary but temporary expedient till mothers in sufficient numbers should be adequately educated to superintend the instruction of their own children.

The economic conditions of the household necessitated the children engaging in spinning; industrial work is thus recognised as an integral part of Pestalozzi's system. It was likewise utilised to present to the child real situations in which his training in the more formal school subjects could find application, a principle which Pestalozzi adopted from Rousseau and which present-day teaching is only rediscovering. Even the child's religion must, for Pestalozzi, have a practical outcome; thus he says:[2] "Teach your children to pray that they may be willing to work, and to work that they may never grow tired of praying."

The education described in *Leonard and Gertrude* can be estimated by two representative quotations illustrating the intellectual and moral aspects of training.[3]

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[1] Cf. *Leonard and Gertrude*, "The school ought really to stand in closest connection with the life of the home." *Evening Hours of a Hermit*, "The home should be the foundation of any natural scheme of education. Home is the great school of character and of citizenship."

[2] *Leonard and Gertrude*, English trans., p. 86.

[3] *Ibid.*, pp. 130-1, 43-4.

"Although Gertrude exerted herself to develop very early the manual dexterity of her children, she was in no haste for them to learn to read and write. But she took pains to teach them early how to speak; for, as she said, 'of what use is it for a person to be able to read and write if he cannot speak?—since reading and writing are only an artificial sort of speech.' To this end she used to make the children pronounce syllables after her in regular succession, taking them from an old A B C book she had. This exercise in correct and distinct articulation was, however, only a subordinate object in her whole scheme of education, which embraced a true comprehension of life itself. Yet she never adopted the tone of instructor toward her children; she did not say to them: 'Child, this is your head, your nose, your hand, your finger'; or: 'Where is your eye, your ear?' but instead she would say: 'Come here, child, I will wash your little hands,' 'I will comb your hair,' or, 'I will cut your finger nails.' Her verbal instruction seemed to vanish in the spirit of her real activity, in which it always had its source. The result of her system was that each child was skilful, intelligent, and active to the full extent that her age and development allowed.

"The instruction she gave them in the rudiments of arithmetic was intimately connected with the realities of life. She taught them to count the number of steps from one end of the room to the other, and two of the rows of five panes each, in one of the windows, gave her an opportunity to unfold the decimal relations of numbers. She also made them count their threads while spinning, and the number of turns on the reel, when they wound the yarn into skeins. Above all, in every occupation of life she taught them an accurate and intelligent observation of common objects and the forces of nature."

The practical form which the moral instruction took is evident from the dialogue which depicts Gertrude on a Saturday evening reviewing the children's conduct and inculcating any lessons which the events of the week might have occasioned.

" 'Well, my dears, how has it been about doing right this week ?' The children looked at each other and were silent. 'Annie, have you been good this week ?' Casting down her eyes in shame, the child replied : 'No, mother ; you know how it was with my little brother.'

'Annie, something might have happened to the child,—and just think how *you* would like it, if you should be shut up in a room all alone without food or amusement ! Little children who are left alone in that way sometimes scream so that they injure themselves for life. Why, Annie, I could never feel easy about going away from home if I thought you would not take good care of the child.'

'Indeed, mother, I will never leave him alone again !'

'And, Nicholas,' said Gertrude, turning to her oldest son ; 'how is it with you this week ?'

'I don't remember anything wrong.'

'Have you forgotten that you knocked down little Peggy on Monday ?'

'I didn't mean to, mother.'

'I should hope not, Nicholas ! Aren't you ashamed of talking so ? If you grow up without considering the comfort of those about you, you will have to learn the lesson through bitter experience. Remember that, and be careful, my dear boy . . .'

Gertrude talked similarly with all the other children about their faults, even saying to little Peggy : 'You mustn't be so impatient for your soup or I shall make you wait longer another time, and give it to one of the others.'

. After this was over, the children folded their hands and said their usual evening prayer, followed by a special prayer for Saturday night, which Gertrude had taught them."

While *Leonard and Gertrude* reflects the romanticism of the *Emile*, *How Gertrude Teaches Her Children* anticipates the formalism of Froebel and of Herbart. Reviewing Pestalozzi's later work Herbart states :[1] "It is his intention to place in the hands of wholly ignorant teachers and parents such writings as they need only to cause the children to read off and learn by heart, without adding anything of their own. What he believed could be carried into effect most immediately he preferred ; he must have his levers sturdy enough not to break even in clumsy hands. The book in which, under the form of letters to a friend, he describes the outlines of such a plan, belongs really in the hands of such men as have influence on the organisation of the lowest schools and upon parents of the lowest social ranks. Such men would be able to spread his actual schoolbooks, which are to be published in the future. What is faulty in the whole publication therefore is, perhaps, its title, which brings it immediately into the hands of women, of mothers."

Although the title and the form of Pestalozzi's chief work are unfortunate, it nevertheless affords an insight into the means which he adopted at Burgdorf to secure that the children under his care would have immediate experience or an intuitive apprehension (Anschauung) of things.[1]

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[1] Eckoff's trans. of *Minor Pedagogical Works*, pp. 37-8. Cf. p. 183. Cf. Pestalozzi's *How Gertrude Teaches Her Children*, English trans., p. 41 : "I believe it is not possible for common popular instruction to advance a step, so long as formulas of instruction are not found which make the teacher, at least in the elementary stages of knowledge, merely the mechanical tool of a method, the result of which springs from the nature of the formulas and not from the skill of the man who uses it."

Pestalozzi arrived at the conception of Anschauung in an indirect manner. In his early work at Stanz he came to appreciate the value of perfecting the first beginnings in learning and of securing that no essential fact or stage of knowledge should be omitted in the course of instruction; careful attention to these requirements could alone guarantee proper progress in the later stages and at the end a complete and perfect knowledge of the subject. "The result of attending to this perfecting of the early stages," Pestalozzi admits,[2] "far outran my expectations. It quickly developed in the children a consciousness of hitherto unknown power, and particularly a general sense of beauty and order. They felt their own power, and the tediousness of the ordinary school-tone vanished like a ghost from my rooms. They wished,—tried,—persevered,—succeeded, and they laughed. Their tone was not that of learners, it was the tone of unknown powers awakened from sleep; of a heart and mind exalted with the feeling of what these powers could and would lead them to do."

These results, as he acknowledges,[3] were due to "a simple psychological idea which I felt but of which I was not clearly aware," an idea which we may formulate in general terms as the adaptation of the subject-matter of instruction to the intellectual capacity and stage of mental development of the pupils, or in terms more akin to those later adopted by Pestalozzi, as the correlation of the impressions brought to the child by instruction with the initiation and progress of the powers to be developed in him. This principle necessitated the subject-matter being presented at the "psychological moment," "in order, on the one hand not to hold him back if he is ready, and on the other, not to load him and confuse him with anything for which he is not ready."[1] It further demanded a gradual sequence in instruction following the strictest psychological order. From his experiment at Stanz, Pestalozzi concluded that it was possible to found popular instruction on psychological grounds.[2]

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[1] Anschauung is here rendered intuitive apprehension, not apprehension for which the German is Auffassung, or observation = Beobachtung, or Perception = Wahrnehmung.

[2] *How Gertrude Teaches Her Children*, English trans., p. 17

[3] *Ibid.*, p. 16.

Only through his later experience at Burgdorf did Pestalozzi come to full consciousness of his main principle. There he first sought to apply it to the beginnings of spelling and counting, but later substituted for these the drawing of angles, squares, lines, and curves. "With this work," he explains,[3] "the idea gradually developed of the possibility of an A B C of Anschauung; and while working this out, the whole scheme of instruction in all its scope appeared, though still dimly, before my eyes." The revelation to himself of his own principle he attributes to the chance remark of a visitor to Burgdorf—"Vous voulez méchaniser l'éducation"—which Pestalozzi interpreted to signify that he was seeking means of bringing education and instruction into psychologically ordered sequence.[4]

Applying consciously the principle that instruction can only be successful when the subject-matter of instruction is adapted to the stage of mental development of the pupil, Pestalozzi was soon led to recognise that "the child must be brought to a high degree of knowledge, both of things seen and words, before it is reasonable to teach him to spell or read, that at their earliest age children need psychological training in apprehending objects intuitively in an intelligent manner."[1] Thus did Pestalozzi arrive at the principle that an immediate acquaintanceship with, or intuitive knowledge of, objects is the indispensable preparation for an adequate and effective education. Like Rousseau he makes necessity the keynote of early education, but unlike Rousseau he would not merely limit the child's experience to things but would also subject him from the outset to social influences.

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[1] *How Gertrude Teaches Her Children*, p. 26. Cf. p. 126: "All branches of instruction demand essentially psychological analysis of their methods, and the age should be exactly fixed at which each may, and ought to be, given to the child."

[2] p. 19.

[3] p. 23.

[4] p. 25.

By Anschauung, or intuitive apprehension, is to be understood the direct acquaintance or immediate experience of objects. The term cannot be adequately rendered by "observation" as it includes also the apprehension of sensory impressions in modalities other than the visual, nor by "sense-impression" since it is employed to connote affective and volitional experiences. It emphasises the immediacy of the experience but does not imply simplicity in the process; negatively it excludes the intervention of any object or process between the subject and his experience.

The very employment by Pestalozzi of the term Anschauung illustrates his psychological outlook in Education, and indicates the advance which he has made on Comenius. Comenius insisted on the need for direct acquaintance with things by the pupils, but this he assumed could be secured by extending the range of objects brought within the purview of the pupil, whereas Pestalozzi contended that the child's experience of things could be increased by improvement through training of the powers of intuitive apprehension. The need for such training and the improvement resulting therefrom have been confirmed[1] by the investigations of Experimental Education. The difference of standpoint between Comenius and Pestalozzi is evident even in the titles which they respectively employed for their works, Comenius's being characterised as *Orbis pictus* and Pestalozzi's as *A B C der Anschauungen.*

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[1] *Ibid.*, p. 26.

The elementary and fundamental aspects of intuitive apprehension, according to Pestalozzi's treatment, are form, number, and language. As such an analysis differs fundamentally from that which Psychology would now present of the aspects of Anschauung, it may be advisable to present Pestalozzi's account of how he arrived at his classification. "Living, but vague, ideas of the elements of instruction," he records,[2] "whirled about in my mind for a long time . . . At last, like a *Deus ex machina,* came the thought—the means of making clear all knowledge gained by sense-impression comes from number, form, and language. I suddenly seemed to throw a new light on what I was trying to do.

"Now, after my long struggle, or rather my wandering reverie, I aimed wholly and simply at finding out how a cultivated man behaves, and must behave, when he wishes to distinguish any object which appears misty and confused to his eyes, and gradually to make it clear to himself.

"In this case he will observe three things :—

1. How many, and what kinds of objects are before him.
2. Their appearance, form or outline.
3. Their names ; how he may represent each of them by a sound or word.

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[1] Cf. E. Meumann, *The Psychology of Learning,* English trans., ch. iii.

[2] *How Gertrude Teaches Her Children,* English trans., pp. 86-8. Cf. p. 33, pp. 51-2.

"The result of this action in such a man manifestly presupposes the following ready-formed powers:

1. The power of recognising unlike objects, according to the outline, and of representing to oneself what is contained within it.

2. That of stating the number of these objects, and representing them to himself as one or many.

3. That of representing objects, their number and form, by speech, and making them unforgettable.

"I also thought number, form and language are, together, the elementary means of instruction, because the whole sum of the external properties of any object is comprised in its outline and its number, and is brought home to my consciousness through language. It must then be an immutable law of the Art of Instruction to start from and work within this threefold principle.

1. To teach children to look upon every object that is brought before them as a unit, that is, as separated from those with which it is connected.

2. To teach them the form of every object, that is, its size and proportions.

3. As soon as possible to make them acquainted with all the words and names descriptive of objects known to them.

"And as the instruction of children should proceed from these three elementary points, it is evident that the first efforts of the Art of Instruction should be directed to the primary faculties of counting, measuring, and speaking, which lie at the basis of all accurate knowledge of objects of sense. We should cultivate them with strictest psychological Art of Instruction, endeavour to strengthen and make them strong, and to bring them, as a means of development and culture, to the highest pitch of simplicity, consistency, and harmony."

Recognising that some justification was necessary for his selection of, and the restriction of himself to these three aspects of Anschauung, Pestalozzi proceeds to explain: "The only difficulty which struck me in the recognition of these elementary points was: Why are *all* qualities of things we know through our five senses not just as much elementary points of knowledge as number, form, names? But I soon found that all possible objects have absolutely number, form, and names; but the other characteristics, known through our five senses, are not common to all objects. I found, then, such an essential and definite distinction between the number, and names of things and their other qualities, that I could not regard other qualities as elementary points of knowledge. Again, I found all other qualities can be included under these elementary points; that consequently, in instructing children, all other qualities of objects must be immediately connected with form, number, and names. I saw now through knowing the unity, form, and name of any object, my knowledge of it becomes *precise*; by gradually learning its other qualities my knowledge of it becomes *clear*; through my consciousness of all its characteristics, my knowledge of it becomes *distinct*."

The following comments on Pestalozzi's conception are necessary. Pestalozzi so extended the use of the term Anschauung that it connotes at times almost any sort of mental experience. The three aspects which he distinguishes, number, form, and name, are not regarded by him as of co-ordinate rank; while number and form are actual properties of things, the name is the means of making these elements clear and definite and fixing them in mind.[1] By thus assigning to the name a secondary function Pestalozzi escapes the charge of reintroducing as a form of Anschauung a merely verbal training. The name, indeed, appertains rather to the apperceptive aspect of apprehension than to intuitive apprehension. The aspects of Anschauung which Pestalozzi distinguishes, number, form, and name, although referred to as elementary, are not simple, for forms are the products of a combining activity of mind; likewise are numbers. The argument by which Pestalozzi excludes from Anschauung the elements of sense-perception like colour is not convincing. It should also be remarked that the temporal aspects of things are ignored,[1] and as a consequence Pestalozzi limits Anschauung to objects which are static and does not embrace in his conception the intuitive apprehension of physical activities and processes.

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[1] Cf. *How Gertrude Teaches Her Children*, p. 150.

Nevertheless to Pestalozzi is due the credit of presenting an analysis of Anschauung which, though psychologically incomplete and defective, enabled him to secure a groundwork for each of the elementary subjects, to throw new light on the relation of these one to the other, to introduce into the primary school a training in Anschauung and to demonstrate that actual experience of things is the foundation of all knowledge.[2]

As knowledge begins in intuitive apprehension, its development proceeds, according to Pestalozzi, from Anschauung to concept; or more exactly expressed it proceeds from confused to clear Anschauungen and from clear Anschauungen to clear concepts.[3] Pestalozzi thus presupposes two fundamental mental activities, intuitive apprehension and thinking. Between these stand certain intermediate activities, especially imagination, which enable us to rise from intuitive apprehension to conceptual thinking.[1]

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[1] Time is incidentally mentioned by Pestalozzi (*How Gertrude Teaches*, English trans., p. 105, p. 152), but the idea is not elaborated.

[2] Cf. p. 139 and p. 144.

[3] Cf. p. 89: "From vague to precise sense-impressions, from precise sense-impressions to clear images, and from clear images to distinct ideas."

With the language aspect of Anschauung, Pestalozzi concerned himself more particularly,[2] leaving the development of number and form to his coadjutors at Burgdorf. He reasoned that the child must learn to talk before he can be taught to read,[3] and recognised the child's need for a full and facile vocabulary. Thus he affirms :[4] "The advantage of a fluent and early nomenclature is invaluable to children. The firm impression of names makes the things unforgettable, as soon as they are brought to their knowledge ; and the stringing together of names in an order based upon reality and truth develops and maintains in them a consciousness of the real relation of things to each other. Certain it is that when a child has made the greater part of a scientific nomenclature his own, he enjoys through it at least the advantage that a child enjoys who in his own, a great house of business, daily becomes acquainted from his cradle upwards with the names of countless objects." Pestalozzi does not propose that the child should acquire a stock of names merely for their own sake but as a means to the mastery of things, a function which the name has had from the earliest times. Against verbolatry he protests in his criticisms of the catechising and Socratizing methods of Krusi, which he characterised as nothing but a parrot-like repetition of unintelligible sounds.[1] He also complained [2] that in the lower schools for more than a century there had been given to empty words a weight in the human mind that not only hindered attention to the impressions of nature, but even destroyed man's inner susceptibility to these expressions. His own method, he explains,[3] was "like Nature with the savage, I always put the picture before the eye, and then sought for a word for the picture."

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[1] Cf. *How Gertrude Teaches Her Children*, p. 85.

[2] Cf. *Swansong* : "My only claim to influence on the reorganisation of the theory of elementary education lies in the department of language teaching."

[3] Cf. *How Gertrude Teaches Her Children*, p. 36 : "The child must learn to talk before he can be reasonably taught to read," p. 84 : "Thus I found, in teaching to read, the necessity of its subordination to the power of talking."

[4] p. 33. Cf p 51 : "Through a well-arranged nomenclature, indelibly impressed, a general foundation for all kinds of knowledge can be laid, by which children and teacher, together, as well as separately, may rise gradually, but with safe steps, to clear ideas in all branches of knowledge."

Pestalozzi's insistence upon the need for a training in language as an indispensable preliminary to an adequate education moved Herbart to ask:[4] "What stands so long and universally in the way of human education as lack of language? Who is more surely excluded from the benefits of instruction conferred in human conversation than he who neither knows how to choose the appropriate expression nor how to appreciate the force of an expression well invented? Does even the educated man ever come to the end of the study of language, the creatress of all conversation, all society?"

Pestalozzi reduced language to words or names, and the latter he resolved into sounds. For each stage he constructed formal exercises, beginning with syllables which he regarded as the irreducible elements. There first exercises took the form, for example, a—ab—bab, etc., much after the manner of the present-day phonic methods of teaching to read. Lists of names of the most important objects in all divisions of the kingdom of nature, history, geography, human callings and relations be required to be memorised, and lastly sentences had to be formed in various ways.[1] It would be unjust, as it would be unprofitable, to criticise Pestalozzi's mechanical procedure in detail, as the application of his principles was in great part left to his coadjutors who, as he was himself later constrained to acknowledge, failed to appreciate fully his ideas; Pestalozzi's method had, however, the recommendation that it based reading on sounds and not on spelling, and thereby prepared the way for modern methods. Pestalozzi himself claimed[2] for his method of instruction that it made greater use of language as a means of raising the child from vague sense-impressions to clearer ideas than had ever been done before; also that it was distinguished by the principle of excluding all collections of words, presupposing actual knowledge of language or grammar, from the first stages of elementary instruction.

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[1] p. 46. [2] p. 113. Cf. also p. 112, p. 158. [3] p. 55.

[4] *Minor Pedagogical Works*, English trans., pp. 43-4.

Apprehension of form was developed in the children mainly through drawing. As Pestalozzi substituted language exercises for reading, so he substituted drawing for the early lessons in writing on the ground that children are ready at an earlier age for knowledge of proportion and the guidance of the slate pencil, than for guiding the pen, and making tiny letters.[3] Pestalozzi, in fact, built all power of doing, even the power of clear representation of all real objects, upon the early development of the ability to draw lines, angles, rectangles, and curves.[1] Thus he states[2] that "by exercises in lines, angles and curves, a readiness in gaining sense-impressions of all kinds is produced in the children, as well as skill of hand, of which the effect will be to make everything that comes within the sphere of their observation gradually clear and plain." Against the tendency for the means to obscure the aim, and for drawing to become an end in itself, Pestalozzi protested,[3] saying once "Nature gives the child no lines, she only gives him things, and lines must be given him only in order that he may perceive things rightly. The things must not be taken from him in order that he may see only lines." And concerning the danger of rejecting Nature for the sake of lines, on another occasion he angrily exclaimed:[4] "God forbid that I should overwhelm the human mind and harden it against natural sense-impressions, for the sake of these lines and of the Art of Instruction, as idolatrous priests have overwhelmed it with superstitious teaching, and hardened it against natural sense-impressions."

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[1] See *How Gertrude Teaches Her Children*, English trans., Letter VII.

[2] p. 111.

[3] p. 35. Cf. p. 84: "I found in the effort to teach writing, the need of subordinating this art to that of drawing, and in the efforts to teach drawing the combination with, and subordination of, this art to that of measurement."

Pestalozzi's method of teaching form has not the same permanent value as his methods in language and number teaching, yet it was this aspect of Anschauung that Herbart elaborated and to which he devoted one of his earliest essays in Education.[5] By basing writing on drawing, separating the acquisition of the forms from the command of the writing instrument, and using the skill acquired in writing for the expression of significant ideas[6] Pestalozzi anticipated in many points the Montessori method of teaching writing. The defect of his method, as in language teaching, is that he carried his analysis to its ultimate limits, whereas what is psychologically simple to the child is not necessarily what remains when analysis cannot be carried further; in writing, the unit is the word or the letter, not the so-called element of the letter.

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[1] p. 60. [2] p. 51.

[3] *How Gertrude Teaches Her Children*, English trans., p. 69. [4] *Ibid.*

[5] *A B C der Anschauung*, English trans., by W. J. Eckoff.

[6] Cf. p. 129: "As writing, considered as form, appears in connection with measuring and drawing, so it appears again as a special kind of learning to talk."

Scope for the application of Pestalozzi's principle of concreteness was readily found in arithmetic. Reviewing Krusi's development as a teacher, Pestalozzi writes: "For instance, when he asked in arithmetic, How many times is seven contained in sixty-three? the child had no real background for his answer, and must with great trouble dig it out of his memory. Now, by the plan of putting nine times seven objects before his eyes, and letting him count them as nine sevens standing together, he has not to think any more about this question; he knows from what he has already learnt, although he is asked for the first time, that seven is contained nine times in sixty-three. So it is in other departments of the method."[1] The general principle of intuitive apprehension as applied to arithmetic Pestalozzi formulated in these terms:[2] "That by exercising children beginning to count with real objects, or as least with dots representing them, we lay the foundation of the whole of the science of arithmetic, and secure their future progress from error and confusion."

Whereas experiment has demonstrated that the apprehension of number-forms can be facilitated by a modification of the arrangement of the units proposed by Pestalozzi,[3] and discussion has arisen as to whether numbers are better represented auditorily than visually,[1] experience has but confirmed the general principle of Pestalozzi that the concrete representation of number is indispensable to the beginnings of the teachings of arithmetic.

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[1] *How Gertrude Teaches Her Children*, English trans., p. 54.

[2] p. 51. Vertical strokes were usually adopted by Pestalozzi to represent the units.

[3] See chapter on Arithmetic in the writer's *Introduction to Experimental Education*.

The objections which the formalism of Pestalozzi immediately suggests have been raised and to some extent met by Herbart in his review of *How Gertrude Teaches Her Children*. As Herbart was an eye-witness of the application of the methods by Pestalozzi it may be profitable to reproduce even at some length his apology of Pestalozzi.[2]

"But why did Pestalozzi cause so much to be memorised? Why did he seem to have chosen the subjects of instruction so little in accordance with the natural inclinations of children? Why did he make them always study or practise? Why never converse with them—never chat, never joke, never tell a story? Why were the sentences so disconnected? Why did the names stand isolated by themselves? Why was the whole range of devices for softening the rigidity of school life despised here? In all other respects Pestalozzi is at first sight a man full of love and friendliness. He greets so humanly everything human. His first word seems to say to you, 'Whoever deserves to find a heart, finds one here.' Why did he not pour forth more joy among the children who filled his whole soul? Why did he not combine more of the agreeable with the useful?

"These questions did as a fact not perplex me as much as they might, perhaps, have shaken the faith of others. I was prepared by my own experience and experiments to estimate the mental powers of children very much more highly than is usual, and to look for the cause of children's pleasure or displeasure at instruction elsewhere altogether than in superfluous dallying on the one hand, or the supposed dryness and difficulty of things demanding seriousness and attention on the other. What is deemed by the teacher the easier and what is deemed the more difficult, I had several times found in children strikingly reversed. I had long held their feeling of a clear apprehension to be the sole and genuine spice of instruction, and a regularity of sequence perfect and adequate in all respects was to me the grand ideal in which I saw the thorough-going means for securing to all instruction its rightful effect. The main endeavour of Pestalozzi, as I was given to understand, was exactly the same; namely, to find this sequence, this arrangement and combination of all things which must be taught either simultaneously or successively. On the supposition that he had found it, or at least that he was on the right way thither, every inessential addition, every adventitious aid would be an injury. It would be reprehensible, because it would distract attention from the main point. If he has not found that sequence, it still remains to be found, or at least to be amended and continued. But even in that case his method is correct; at least to the extent of throwing out the injurious additions. Its laconic brevity is its essential merit. Not a useless word is heard in his school; the train of apperception is never interrupted. The teacher pronounces for the children constantly. Every faulty letter is expunged from the slate immediately. The child never dwells on its mistakes. The right track is never departed from; hence every moment marks progress.

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[1] *Ibid.*

[2] Eckoff's trans. of *Herbart's Minor Pedagogical Works*, pp. 34-6.

"But the memorising of names, or sentences, of definitions, and the seeming carelessness whether all this was understood, made me doubt and caused me to inquire. Pestalozzi answered me by a counter-question: 'If the children did not think in doing it, would they learn so swiftly and cheerfully?' I had seen the cheerfulness. I had no explanation for it, unless I assumed that it was accompanied by inner activity. Continuing the conversation, however, Pestalozzi led me to the idea that, after all, the intrinsic comprehensibleness of the instruction is a matter of far greater importance than that the child should understand on the instant what is taught at that instant. Most of what was memorised related to subjects of the children's daily sense-perceptions. The child bearing a description in the mind left the school, met with the object, and though it did not comprehend the sense of the words until now, did comprehend it more perfectly than if the teacher had attempted to explain his words by other words. The happy moments of comprehension, and especially those of deeper pondering and connection, in short, of reflection, do not fall exactly within determinate lesson periods. Let the lesson give what is comprehensible and set together that which belongs together. Time and opportunity will afterwards supply the concept and will correlate what was set forth together."

Although *How Gertrude Teaches Her Children* is mainly concerned with the nature and development of knowledge, Pestalozzi would not have it thought that this is the aim of education, for he says: "To have knowledge without practical power, to have insight, and yet to be incapable of applying it in every day life. What more dreadful fate could an unfriendly spirit devise for us."[1] The last sections of *How Gertrude Teaches* are consequently devoted to practical, moral and religious training,[1] and Pestalozzi's ideas on these subjects are elaborated in his later writings.[2] In these subjects Pestalozzi warns us that we cannot entrust nature with the training. He thus defines his aim in respect to them:[3] "To take human education out of the hands of blind nature, to free it from the destructive influence of her sensual side, and the power of the routine of her miserable teaching, and to put it into the hands of the noblest powers of our nature, the soul of which is faith and love."

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[1] Cf. p. 173.

In the acquisition of skill, the development of virtue and the fostering of religion, Pestalozzi maintains that the same methods must be adopted as in the extension of knowledge.[4] "The necessity of great care for the psychological manner of developing our powers of doing, as well as the psychological training for the development of our power of knowing is obvious." We must consequently begin with immediate experience,—in morality and religion with the feelings and sentiments aroused in a child by the protection and care of the mother,—and then apply "the universal laws of the art of instruction by following which the children may be educated by a series of exercises, proceeding gradually from the simplest to the most complicated."[5]

In *How Gertrude Teaches Her Children* Pestalozzi did not attempt to determine the relationship which should exist amongst the different aspects of education. In the *Swansong*, however, he definitely characterises this relationship as one of harmony. The harmony of the powers is dependent on the unity of human nature.[1] "The education of all three sides of our nature," he says,[2] referring to heart, head, and hand, "proceeds on common lines in equal measure, as is necessary if the unity of our nature and the equilibrium of its powers are to be recognised from the outset."

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[1] Letters XII, XIII, XIV.

[2] See J. A. Green, *Life and Work of Pestalozzi*, and *Pestalozzi's Educational Writings*, edited by Green.

[3] *How Gertrude Teaches*, p. 190. Cf. p. 174 and p. 187.

[4] Cf. p. 173: "The cultivation of dexterity rests on the same laws as the cultivation of knowledge."

[5] *How Gertrude Teaches*, p. 177. The need for the application of such laws Pestalozzi mentions. See pp. 177, 189.

In the definition of Education which he gives in *How Gertrude Teaches Her Children*, the idea of harmony was included:[3] "The aim of all instruction is, and can be, nothing but the development of human nature, by the harmonious cultivation of its powers and talents, and the promotion of manliness of life." Emphasis on "harmony" or on well-balanced training, it may be remarked, should not blind us to the fact that education while suppressing idiosyncracy should respect individuality.[4] There is a further danger in this definition from which Pestalozzi was delivered by reason of the poverty of the pupils whom he instructed, namely, that it may lead to a mere training of the mental faculties without regard to the social value of the training and the social situations which the pupil will later have to encounter; we might train the memory on nonsense-syllables, the observation on Chinese hieroglyphics, etc., and we should only have a very sorry specimen of humanity as the result.

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[1] *Swansong, Pestalozzi's Educational Writings*, ed. by Green, p. 268.

[2] *Swansong*, p. 281.

[3] pp. 156-7. Cf. "Views and Experiences" in *Pestalozzi's Educational Writings*, ed. by Green, p. 159: "The sole aim of education is the harmonious development of the faculties and dispositions which make up personality."

[4] This Pestalozzi recognises: "Unusual capacity should be given every possible chance, and, above all, it should be rightly guided." *Swansong*.

The peculiar merit of the Pestalozzian method consists, according to Herbart,[1] "in having laid hold more boldly and more zealously than any former method of the duty of building up the child's mind, of constructing in it a definite experience in the light of clear sense-perception; not acting as if the child had already an experience, but taking care that he gets one; by not chatting with him as though in him, as in the adult, there already were a need for communicating and elaborating his acquisitions; but, in the very first place, giving him that which later on can be, and is to be, discussed. The Pestalozzian method, therefore, is by no means qualified to crowd out any other method, but to prepare the way for it. It takes care of the earliest age, that is at all capable of receiving instruction. It treats it with the seriousness and simplicity which are appropriate where the very first raw materials are to be procured." That his system did not pretend to completeness Pestalozzi himself confessed:[2] "I did not and do not wish to teach the world art and science; I know none. I did and do wish to make the learning of the first beginning-points easy for the common people, who are forsaken and left to run wild; to open the doors of art, which are the doors of manliness, to the poor and weak of the land; and if I can, to set fire to the barrier that keeps the humbler citizens of Europe in respect to that individual power which is the foundation of all true art, far behind the barbarians of the south and north, because, in the midst of our vaunted and valued general enlightenment, it shuts out one man in ten from the social rights of men, from the right to be educated, or at least from the possibility of using that right."

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[1] Eckoff's trans. of *Minor Pedagogical Works*, p. 61.

[2] *How Gertrude Teaches Her Children*, English trans., p. 104.

The estimate of Herbart on Pestalozzi's work is, however, somewhat at variance with that of Froebel. It was the earlier efforts of Pestalozzi in the adverse circumstances at Burgdorf[1] where any measure of success was commendable that Herbart approved, whereas Froebel later encountered the more ambitious enterprise at Yverdun only to have his great expectations disappointed.[2] Writing of his first visit[3] Froebel says: "What I saw was to me at once elevating and depressing, arousing and also bewildering . . . The disappointing side of the teaching plan, against which I intuitively rebelled, although my own tendencies on the subject were as yet so vague and dim, lay, in my opinion, in its incompleteness and one-sidedness. Several subjects of teaching and education highly important to the all round harmonious development of a man seemed to me thrust far too much into the background, treated in stepmotherly fashion, and superficially worked out." This conviction was but confirmed by Froebel's second visit to Yverdun;[4] and it is not surprising, for by this time disunion was beginning to manifest itself among Pestalozzi's coadjutors, and to affect the work of the institution. "The powerful, indefinable, stirring and uplifting effect produced by Pestalozzi when he spoke, set one's soul on fire for a higher, nobler life," writes Froebel, "although he had not made clear or sure the exact way towards it, nor indicated the means whereby to attain it. Thus did the power and many sidedness of the educational effort make up for the deficiency in unity and comprehensiveness; and the love, the warmth, the stir of the whole, the human kindness and benevolence of it replaced the want of clearness, depth, thoroughness, extent, perseverance, and steadiness . . . On the whole I passed a glorious time at Yverdun, elevated in tone, and critically decisive for my after life. At its close, however, I felt more clearly than ever the deficiency of inner unity and interdependence, as well as of outward comprehensiveness and thoroughness in the teaching there."

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[1] Herbart's visit to Burgdorf took place in 1799.

[2] Froebel in his *Autobiography* admits: "There was no educational problem whose resolution I did not firmly expect to find there."

[3] The first visit lasted a fortnight, Froebel leaving Yverdun mid-October, 1805. See *Autobiography*, English trans., pp. 53-5.

[4] 1808-1810. See *Autobiography*, English trans., pp. 78-83.

Pestalozzi's efforts in Education were tentative, and although lacking the scientific precision demanded to-day, they were in the broader sense of the term experimental.[1] His results had not that consistency which obtains in a purely *a priori* scheme of Education, nor did they command that respect which attaches to the conclusions of a philosophical theory;[2] as the products of hard-won experience they nevertheless possess a reliability which many other more pretentious results do not. With Pestalozzi it may truly be said that necessity was the mother of invention, and this he himself recognised when he prayed[3] "God, I thank thee for my necessity." It was this necessity which constrained him to allot to instruction in intuitive apprehension a place in education, to attempt an analysis of Anschauung, to insist on the necessity for training the child in intuitive apprehension according to a definite and systematic procedure, and above all to make direct acquaintance with, or immediate experience of, actual objects and processes, "the common starting point of all instruction."[1]

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[1] Pestalozzi frequently referred to his own methods as experimental. Cf. *How Gertrude Teaches*, pp. 154, 166, 172.

[2] Cf. *How Gertrude Teaches Her Children*, English trans., p. 83: "Since my twentieth year, I have been incapable of philosophic thought, in the true sense of the word."

[3] *How Gertrude Teaches Her Children*, English trans., p. 18.

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[1] *How Gertrude Teaches Her Children*, p. 89. For Pestalozzi's own statement of his contribution to Education see p. 139.

CHAPTER X

HERBART

"PEDAGOGY as a science," says Herbart,[1] "is based on practical philosophy and on psychology. The former points out the aim of culture, the latter the way, the means and the obstacles." While Pestalozzi sought to psychologise Education, Herbart, as is evident from the statement quoted, by assigning to practical or ethical philosophy the determination of the aim, sought in addition to philosophise Education.

Not only did Herbart define the aim of Education but he showed by means of a systematic psychology how that aim might be attained. He gave to Education a technical vocabulary and formulated a definite procedure in teaching, thereby founding a school which has attracted many disciples and contributed largely to the literature of Education.

The end of Education is dictated by Ethics. This Herbart repeatedly affirms: "The one problem, the whole problem of Education may be comprised in a single concept —morality."[2] "The term virtue expresses the whole purpose of Education."[1] "The ultimate purpose of instruction is contained in the notion virtue."[2] Notwithstanding these assertions Herbart subordinates the ethical to the aesthetic judgment, and subsumes ethics under aesthetics. He does not, like Kant, regard morality as absolute, and the moral judgment as "a categorical imperative," but assumes that the only type of judgment which is self-contained, or "categorical" in Kant's sense, is the aesthetic, that its authority alone is unconditioned. He accordingly regards an aesthetic representation of the universe as the ideal of Education.[3]

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[1] *Umriss pädagogischer Vorlesungen*, § 2. Cf. Lange's translation under title, *Outlines of Educational Doctrine*. To secure consistency quotations from the English translations have been modified as required.

[2] *Die aesthetische Darstellung der Welt, als das Hauptgeschäft der Erziehung*, translated by W. J. Eckoff in *Herbart's A B C of Sense-Perception and Minor Pedagogical Works*, p. 92.

In support of his subsumption of ethics under aesthetics Herbart cites[4] the authority of Plato, who in the *Philebus* puts the good in the class of the beautiful. A more recent philosopher, Nietzsche, adopted the same standpoint, and "Beyond Good and Evil"[5] set up the standard of good and bad. The ethical and the aesthetic judgments are, however, different in kind,[6] and art and morality are each in its own sphere absolute. There is doubtless also less danger in subordinating art to morality, as Plato did in the *Republic*, than in subordinating ethics, as Herbart suggests, to aesthetics.

Neither ethics nor aesthetics can, however, determine fully the end of Education. This Herbart admitted,[7] although his admission has usually been ignored, both by his critics and his expositors. Education must include the ideals of truth and righteousness as well as of goodness and beauty. Intellectual inquiry and religious reverence are as natural to man and as necessary to him for the full realisation of his personality as are ethical endeavour and aesthetic enjoyment; and the aim of Education as of life itself cannot be formulated in any more succinct phrase than that of Eucken, namely, to exalt personality.

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[1] *Umriss*, § 8.

[2] *Umriss*, § 62. For distinction which Herbart makes between virtue and morality see Eckoff's trans. of *Minor Pedagogical Works*, p. 93.

[3] *Minor Pedagogical Works*, English trans., p. 16.

[4] Cf. O. Hostinsky, *Herbart's Aesthetik*, p. 71.

[5] Cf. his work under this title.

[6] Cf. Mackenzie, *Manual of Ethics*, pp. 177-182.

[7] *Allgemeine Pädagogik*, Bk. I, ch. ii, § 1: "I therefore believe that the mode of consideration which places morality at the head is certainly the most important, but not the only and comprehensive standpoint of education."

Although Herbart regards psychology as providing the way and the means of Education, he counsels us against making the progress of Education absolutely dependent on psychology, affirming [1] that Education has not time to make holiday till philosophical investigations have been settled. He himself did not postpone the publication of his educational works till his psychological doctrine was determined, for his best known work on education, the *Allgemeine Pädagogik*,[2] preceded his *Lehrbuch zur Psychologie* [3] by a decade.

To simplify exposition we shall nevertheless deal first with Herbart's psychology and ethics, and in doing so we are but following the injunction of Herbart himself, who, in his *Umriss*,[4] states that his first task must be to deal, at least briefly, with the ethical and the psychological bases of Education.

The negative or critical aspect of Herbart's psychology has had more influence on Education than the positive or constructive. As Locke rejected the existence of innate ideas, so Herbart discarded the doctrine of mental faculties.[1] "The soul," he says,[2] "has no innate tendencies nor faculties." Again,[3] "it is an error, indeed, to look upon the human soul as an aggregate of all sorts of faculties." The faculties are, indeed, "nothing real, but merely logical designations for the preliminary classification of psychical phenomena."[4] This rejection of the faculty hypothesis in psychology naturally caused the doctrine of formal training in Education to be challenged, with important consequences for the progress of the second subject.

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[1] *Allgemeine Pädagogik*, Bk. I, ch. 2, § 1.

[2] *Allgemeine Pädagogik*, published 1806. Translated into English under title of *Science of Education* by Henry M. and Emmie Felkin.

[3] *Lehrbuch zur Psychologie*, first edition 1816. Translated into English by Margaret K. Smith.

[4] § 7.

It is frequently maintained that, not content with rejecting mental faculties, Herbart at the same time abolished the soul, and presents us with "a psychology without a soul." "The simple nature of the soul," he affirms,[5] "is totally unknown. It is as little an object of speculative as of empirical psychology." It is known only through its manifestations in ideas or presentations (Vorstellungen)[6] and is then termed mind (Geist), or in feelings and desires and is then regarded as temperament or disposition (Gemüt). With the metaphysical questions as to the existence and nature of the soul, psychology is not concerned. And, as Stout maintains,[7] "to the psychologist the conception of a soul is not helpful. He has no independent means of knowing anything about it which could be useful to him. For him the term 'soul' is virtually only another name for the total system of psychical dispositions and psychical processes." To this system Herbart would, as we have indicated, apply the term "mind" rather than "soul," the soul being for him intrinsically a simple, unchanging being, without any plurality of states, activities, or powers.[1]

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[1] Cf. *Lehrbuch zur Psychologie*, bk. ii, div. i, ch. 1-6.

[2] *Ibid.*, § 152.

[3] *Umriss*, § 20.

[4] *Lehrbuch*, § 236.

[5] *Lehrbuch*, § 153.

[6] *Lehrbuch*, § 33. Herbart's term *Vorstellung* is rendered throughout by *presentation* and is practically equivalent to Locke's term *idea*, defined above, p. 132.

[7] *Groundwork of Psychology*, p. 8.

We must consequently turn to presentations to find the explanation of the mental life. The psychology which Herbart offers is a form of mental mechanics. Although presentations themselves, he distinctly avers,[2] are not forces, yet they assume the nature of forces when they encounter one another, which they do by virtue of the unity of the soul.[3] Similar presentations, for example, a sensation of green yesterday and a sensation of green to-day, on encountering one another are fused together. Contrary presentations, for example, black and white, arrest each other, and if the arrest is only partial, the unarrested remainders fuse with each other. Disparate presentations, for example, a visual sensation and a tactile, are not said to fuse, but to be complicated with each other.[4]

An arrested presentation is never annihilated; when inhibited or repressed it transforms itself into a *conatus*, an effort at self-maintenance, and, when the repressive force is removed, reappears in consciousness, or as Herbart phrases it, rises above the threshold of consciousness.[5]

Certain presentations by their repeated coexistence in consciousness tend to become more intimately connected with one another than with the remaining presentations, and thereby to constitute a relatively independent and separate system or presentation-mass. Such a presentation-mass facilitates the entrance into consciousness of presentations of a like kind; these then become united with the already existing presentations. This process is termed apperception, and is explained by Herbart thus:[1] "Apperception, or assimilation, takes place through the reproduction of previously acquired presentations and their union with the new element." It implies the dependence of the new on the old, or the interpretation of the new by the old, and is not confined to sense-perception but embraces "inner perception" as well; one presentation-mass may exert a determining influence on another.[2]

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[1] *Lehrbuch*, § 150. [2] § 10. [3] § 20.

[4] Cf. G. F. Stout, "The Herbartian Psychology," *Mind*, li (July, 1888), p. 36.

[5] *Lehrbuch*, § 16.

Apperception emphasises the important part which old knowledge plays in the acquirement of the new. As Stout says:[3] "The main principle which psychology lends to the theory of education as its starting point, is the need that all communication of new knowledge should be a development of previous knowledge." What we notice depends not so much on the strength of the stimulus as on the mental system which for the time being is dominant: the direction of attention is conditioned in like manner, and the degree of comprehension of a new fact depends on the comprehensiveness of the apperceptive system which we bring to interpret it. This principle finds expression in literature in various forms. Carlyle says: "The eye sees only what it brings the power to see," and Browning, "'Tis the taught already that profit by teaching." Herbart remarks[4] that every man has his own world even in the same environment. In insisting on the importance of the apperceptive factor in learning, and on the teacher's duty, when introducing a new subject, to secure the presence of the appropriate apperception-mass in the child's mind, Herbart added the necessary complement to Pestalozzi's conception of Anschauung.

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[1] *Umriss*, § 74.

[2] Cf. *Lehrbuch*, § 40; *Umriss*, § 143.

[3] *Analytic Psychology*, ii, pp. 137-8.

[4] *Lehrbuch*, § 213.

Thus far we have considered the manifestation of the soul as mind; we now proceed to consider its manifestation in feelings and desires, as disposition or temperament (Gemüt). The temperament has, however, according to Herbart,[1] its seat in the mind; "feeling and desiring are, above all, conditions of presentations and certainly for the most part, changeable conditions of presentations." Herbart in thus making presentations primordial, and reducing conations and feelings to accessory characteristics of presentations commits himself to an intellectualistic ethics. He nevertheless thereby escapes, and indeed persistently criticises, a transcendental ethics which, however, he avoids attributing to Kant.

Kant's aim was to formulate a metaphysic of ethics; he sought to determine the conditions of the possibility of a moral life, not to trace its actual development. "Transcendental" was employed by Kant to designate what is a necessary condition of the possibility of experience, whereas Herbart's criticisms apply only to what is "transcendent," that is, beyond the limits of experience. Herbart is right in maintaining[2] that as far as the educator is concerned morality is an occurrence, and in offering an empirical ethics, as in offering an empirical psychology, he rendered Education a service.

Herbart seeks to avoid the indeterminist view of the freedom of the will which implies the possibility of action

[1] *Lehrbuch*, § 33.

[2] *Minor Pedagogical Works*, English trans., p. 95.

without motives, thus making the individual's choice arbitrary and indifferent to the influences which education or environment may exert. Such caprice would stultify the teacher's efforts to develop in the pupil a stable character, and would render futile all moral training. It is this type of freedom, and not Kant's doctrine, that Herbart condemns when he says[1] that "not the slightest breath of transcendental freedom may blow through any cranny into the domain of the educator." Herbart also seeks to avoid the fatalism of determinism: "Education would be tyranny if it did not lead to freedom."[2] The aim of the educator, according to Herbart's view, is the paradoxical one of determining the child to the free choice of the good. The educator is in this sense, as Herbart says,[3] unavoidably a determinist. His aim is the same as that formulated by a modern French philosopher: "The task of the educator is a strange one: to act on mind and conscience in such a way as to render them capable of thinking and judging of themselves, to determine initiative, arouse spontaneity and fashion human beings into freedom."[4]

When we ask how Herbart proposes to secure the realisation of his aim, the answer is by his doctrine of volition. Will, Herbart states, is "a desire combined with the conviction of its fulfilment."[5] Objection has been taken to this definition, but it accords almost exactly with that given by a modern psychologist like Stout, who defines volition as "a desire qualified and defined by the judgment that so far as in us lies we shall bring about the attainment of the desired end because we desire it."[6] The conviction that the desire is capable of fulfilment is based on the success attending previous efforts in similar circumstances, "for from success springs the confidence of will whereby desire ripens into decision;"[1] "only when the individual's own action gives him either the indirect assurance, or the direct notion of his own power, does a confident 'I will' result."[2]

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[1] *Minor Pedagogical Works*, English trans., p. 96. Cf. *Umriss*, § 3.

[2] *Berichte an Herrn von Steiger*, 1. [3] *Aphorismen*, xix.

[4] E. Boutroux, *Education and Ethics*, English trans., p. x.

[5] *Lehrbuch*, § 107. Cf. § 223. [6] *Manual of Psychology*, p. 711.

Will thus depends on desire, just as desires, as stated above, are conditions of presentations. "Man wills only presentations and knows only presentations," as Herbart says,[3] "or to speak more exactly, his knowledge is only a perfected, and his volition an inhibited, but nevertheless, realised presentation." Without presentations then we should possess only "a will that wills nothing," to employ the term with which Jacobi characterised Kant's merely formal determination of the will.

To secure right willing the mind must be in possession of the right presentations, and these must be so organised that collectively they more than counterbalance the force with which a presentation leading to evil appears in consciousness. This organisation is a consequence of the apperceptive process which thus plays as important a part in volitional as in intellectual life. "Man's worth," Herbart admits,[4] "does not lie in his knowing but in his willing." He adds, however, "But there is no such thing as an independent faculty of will. Volition has its roots in the circle of thought; not, indeed, in the details one knows, but certainly in the combinations and total effect of the acquired presentations." By securing that the child shall possess the right presentations, or the right "circle of thought," the educator can influence the child's will and fashion his character—for character is the embodiment of the will [1]—and this can be attained in part by the careful selection of the content of instruction.[2] "How the circle of thought is determined is everything for the educator," says Herbart,[3] "since out of thoughts arise sensations (Empfindungen) and from these principles and modes of action."

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[1] *Umriss*, § 152.

[2] *Allgemeine Pädagogik*, bk. iii, ch. iv, § 5.

[3] *Minor Pedagogical Works*, English trans., p. 58.

[4] *Umriss*, § 58. Cf. § 143: "Different acts of volition are the result of different presentation-masses."

Negatively, Herbart's doctrine implies that he who lacks the proper presentations and apperception-masses cannot be virtuous; he misses opportunities for the exercise of virtuous conduct. Herbart's doctrine has, however, been given too intellectualistic a bias by the translation of the dictum [4] "Stumpfsinnige können nicht tugenhaft sein" into "The ignorant man cannot be virtuous." This bias might be removed and the meaning more exactly conveyed by the rendering—"The callous or apathetic man, that is, the man with blunted sensibility, cannot be virtuous." The sight of suffering fails to evoke in such an individual a sympathetic response.[5]

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[1] *Allgemeine Pädagogik*, bk. iii, ch. 1.

[2] Cf. *Umriss*, § 58.

[3] *Allgemeine Pädagogik*, Introduction. Empfindungen is here rendered "sensations" not "feelings" as in the translations of the Felkins. Whereas in his *Lehrbuch zur Psychologie* Herbart employs Empfindungen as equivalent to sensations, he uses Gefühle sometimes for feelings in the strict psychological sense of the term, and sometimes for sensations of touch just as in English the term "feeling" is popularly employed to denote one of "the five senses." In the *Allgemeine Pädagogik* the term Empfindungen is not so strictly employed as in the *Lehrbuch*, sometimes denoting sensations, sometimes feelings. Only the context, and consistency with Herbart's general doctrine, can enable us to decide.

[4] *Umriss*, §64. Lange's translation is: "Imbeciles cannot be virtuous."

[5] Cf. use of "Stumpfsinn" in § 198 of *Lehrbuch*. This attitude is one of the possible evils of habit. See MacCunn, *The Making of Character*, p. 49.

With this outline of Herbart's psychological and ethical doctrine in mind [1] we can the more readily survey his educational writings. In these Herbart seeks to complete the work of Pestalozzi, and to remove the one-sidedness which the latter "in the pursuit of his purpose was neither willing nor able to avoid." [2] Pestalozzi had, according to Herbart,[3] only dealt with the very beginnings of certain forms of instruction which undoubtedly met the most necessary wants and thereby served the greatest number of individuals, but they did not satisfy the requirements of a complete course of education which, although appealing to a smaller number of persons, must nevertheless include a greater variety of activities than those with which Pestalozzi concerned himself.

Herbart's first educational work of importance was his *A B C der Anschauung*[4] in which he deals more exhaustively than Pestalozzi with one of Pestalozzi's three aspects of Anschauung, namely, the apprehension of form. Herbart recognised that this was but one branch of instruction, and his *A B C der Anschauung* is given merely as an illustration of what should be undertaken for the other subjects of the curriculum, for he believed that literature was at least as important an auxiliary of education as mathematics.[5]

Herbart in his *Lehrbuch zur Psychologie* defines Anschauung as "the apprehension of an object when it is given as such and as nothing else;" [6] it presupposes the presentation of an object opposed to other objects and to the self, and hence brings into play at the same time most of the so-called mental faculties, by no means merely those of sense.[1] The process, he maintains, is not the result of a passive condition of the soul; it is a complicated process securing the demarcation and isolation of the apprehended object from the continuum in which it appears, and for its efficient working preparation through many earlier productions of Anschauungen is necessary.

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[1] For fuller treatment see J. Davidson: *A New Interpretation of Herbart's Psychology.*

[2] *Minor Pedagogical Works,* English trans., p. 49.

[3] *Ibid.,* p. 14.

[4] Appeared in 1802. Translated into English by W. J. Eckoff, and included in his *Herbart's A B C of Sense-Perception and Minor Pedagogical Works.*

[5] *Minor Pedagogical Works,* English trans., p. 25.

[6] § 204.

The pedagogical treatment of Anschauung, Herbart recognises, deserves special attention; "Anschauung, this indispensable, this firmest, broadest bridge between man and Nature, certainly deserves as far as it is capable of being cultivated by any art, to have dedicated to it one chief line of pedagogical endeavour."[2] He also affirms:[3] "Anschauung is the most important among the educative occupations of childhood and boyhood. The more quietly, the more deliberately, the less playfully the child contemplates things, the more solid the foundations it is laying for its future knowledge and judgment. The child is divided between desiring, noting and imagining. Which of the three should we wish to have the preponderance? Neither the first nor the third; out of desiring and imagining originates the controlling power of whims and delusions. Whereas in noting originates a knowledge of the nature of things. Such knowledge produces submission to recognised necessity, the only compulsion Rousseau approved and recommended, and which in its turn originates reflective action and a thoughtful choice of means.

"No introduction is more suitable to boyhood than that through intuitive apprehension (Anschauung). But instruction by means of intuitive apprehension instructs in no other way than by actual definite, undistracted, keenly comprehending vision. Accurate noting of the differences of shape is the only security against confusion and substitution. So it is in natural history, in topography, and in every kind of imagination dependent on vision, needed by the artist and the artisan in order to represent to himself the component parts of an implement, machine, or an edifice."

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[1] *Lehrbuch*, § 73; note.

[2] *A B C der Anschauung*, English trans., p. 260.

[3] *Ibid.*, p. 137.

This branch of instruction should aim at training the pupil to perceive a given object accurately and to preserve it faithfully in mind. It is to Pestalozzi's genius, Herbart admits, that Education owes the idea of such training. Herbart believes that the analysis of objects on which depends the exact discrimination of their forms, can best be secured by their resolution into triangular figures, since triangles—not quadrilaterals, as by Pestalozzi—are regarded by him as the fundamental elements of form, form being produced for the first time, and hence in the simplest manner, by the combination of three points.[1]

The exercises which Herbart proposes in the *A B C der Anschauung* are intended not only to train sense-perception but also to prepare for mathematics. Referring to the *A B C der Anschauung* in the *Umriss* almost forty years after the publication of the earlier work, Herbart remarks:[2] "The essential thing is training the eye in gauging distances and angles, and combining such exercises with very simple calculations. The aim is not merely to sharpen observation for objects of sense, but preeminently to awaken geometrical imagination and to connect arithmetical thinking with it. Therein lies the usually neglected, yet necessary, preparation for mathematics. The helps made use of must be concrete objects. Various means have been tried and discarded; the most suitable for the first steps are triangles made from thin hard-wood boards . . . Needless to say exercises in intuitive apprehension do not take the place of geometry, still less of trigonometry, but prepare the ground for these sciences. When the pupil reaches plane geometry, the wooden triangles are put aside, and intuitive apprehension of sensory forms is subordinated to geometrical construction."

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[1] *A B C der Anschauung*, English trans., p. 173.

[2] *Umriss*, § 253, note. The *A B C der Anschauung* was published in 1802, the first edition of the *Umriss* in 1835, the second in 1841.

The elaboration of Herbart's methods and devices belongs to the teaching of geometry, but it may be mentioned that in discoursing in the *A B C der Anschauung* on the place of mathematics in education he comes perilously near advocating the inclusion of mathematics in the school curriculum on disciplinary grounds; suggesting that as mathematical errors betray themselves, the material being to some extent self-corrective, they convict the pupil of inattention, and the exercises can consequently be employed to remove this defect. He at the same time recognises the importance of a knowledge of mathematics for the study of the other sciences, affirming[1] in this connection that "we have not yet assigned to the investigation of nature its true place and rank among the forces that must cooperate in the mind of an educated person, and hence in a mind that is being educated."

For an exposition of Herbart's general educational doctrine we turn to his *Allgemeine Pädagogik*[2] and to his *Umriss pädagogischer Vorlesungen.*[3] The former work, as

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[1] *A B C der Anschauung*, English trans., p. 150.

[2] Published 1806. Translated into English by Henry M. and Emmie Felkin under the title of the *Science of Education.*

[3] First edition 1835. Translated into English by A. F. Lange under title of *Herbart's Outlines of Educational Doctrine.*

Herbart confessed,[1] owed its existence almost as much to his collection of carefully arranged observations and experiments gathered together on very various occasions as it did to his philosophy. In his reply to Jackmann's review of the *Allgemeine Pädagogik*, which appeared five years after the publication of that work, Herbart nevertheless stated that his pedagogy was nothing without his views on metaphysics and practical philosophy. As his practical philosophy or ethical doctrine and his psychological theory were presupposed in his *Allgemeine Pädagogik* but were not yet published, the *Allgemeine Pädagogik* necessarily appeared somewhat enigmatical to its first readers, and by reason of Herbart's plan of publication it still remains somewhat obscure to present-day students. The book, he admitted in the above-mentioned review, had necessarily to contain much that would make serious demands on its readers; the plan and real kernel had to remain in many respects a secret which only the later philosophical writing could disclose. The true psychology which it presupposed could only be mentioned in it as a thing that did not yet exist. Of its relation to his practical philosophy or ethical doctrine Herbart writes as follows:[2] "My General Pedagogy, though it appeared earlier than the Practical Philosophy, was acquainted with the latter. The completed sketches of both, as well as the sketch of the Metaphysics, lay side by side. It was open to choice which was to be elaborated first. Precedence was given to that work which must necessarily by reason of the lack of psychology remain the less complete. The presentation was made as far as possible vivid and inciting to practice, and was so arranged as to let everybody meet first that which is more easily understood, and to put in, further on, texts at least for thoughts by the more patient readers. To remove, however, the possibility of anybody's fancying that the book pretended to be understood altogether by itself, the explanation of the main concepts was intentionally given with such aphoristic brevity as to make its insufficiency patent to everybody."

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[1] *Allgemeine Pädagogik*, bk. iii, ch. vi.

[2] *Minor Pedagogical Works*, English trans., pp. 285-6.

The *Umriss pädagogischer Vorlesungen* was written as a supplement to, and serves as a useful commentary on, the *Allgemeine Pädagogik.*

From his general scientific and philosophical attitude it is only to be expected that Herbart would seek to establish Education as a science, and in the Introduction to the *Allgemeine Pädagogik* he pleads for its recognition as such, condemning mere experience as an unsatisfactory guide and illustrating its weakness by reference to the progress of other sciences; "an exclusively empirical knowledge of man," he asserts in the *Umriss,*[1] "will not suffice for pedagogics." While Education avails itself of ethics in the determination of its aim, and of psychology in order that the educator may understand and interpret rightly the data furnished by observation of the child, Herbart is anxious that not only should Education be regarded as a science but even that it should become an independent science. "It would be better," he consequently says,[2] "if the science of Education remained as true as possible to its intrinsic conceptions, and cultivated more an independent mode of thought whereby it would become the centre of a sphere of investigation, and be no longer exposed to the danger of government by a stranger as a remote tributary province. Only when each science seeks to orient itself in its own way, and also with the same force as its neighbours, can beneficial intercourse take place between them."

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[1] § 2.

[2] *Allgemeine Pädagogik,* Introduction.

The keynote of Herbart's educational theory, the educative value of instruction, is sounded at the very outset of his *Allgemeine Pädagogik*. "Here at once I confess," he says,[1] "that I have no conception of education without instruction, just as conversely, in this book at least, I do not acknowledge any instruction which does not educate." "He only wields the full power of education," he adds, "who knows how to cultivate in the youthful soul a large circle of thought closely connected in all its parts, possessing the power of overcoming that which is unfavourable in the environment, and of dissolving and absorbing into itself all that is favourable." In his reply to Jackmann's review he reiterates that "instruction will above all form the circle of thought, and education the character. The last is nothing without the first—herein is contained the sum total of my Pedagogy."

While instruction is the central theme of Herbart's theory its chief value and end is its influence on character or *training* (*Zucht*), and a primary condition of its possibility is the proper behaviour of the pupil, secured by what Herbart terms *government* (*Regierung*). Thus *government* (*Regierung*), instruction (*Unterricht*), and *training* (*Zucht*), are the three chief concepts according to which Herbart's whole doctrine of education is treated.[2]

While *government* has no educative value, and, if wrongly exercised, may even have a subversive influence on the formation of character, it demands treatment if only that it may be distinguished from *training*. "The separation of the concepts," as Herbart states,[1] "serves to aid the reflection of the educator, who ought rather to know what he is about than make a perceptible difference between them in practice." The distinction between Regierung and Zucht can best be presented in a series of antitheses: "The aim of *government* lies in the present, whereas *training* has in view the future adult."[2] "To maintain quiet and order in the lessons, to banish every trace of disrespect to the teacher, is the business of *government*: direct action on the temperament of youth with a view to culture is *training*."[3] "*Government* acts at intervals: *training* is continuous, persevering, slowly penetrating, and only ceasing by degrees."[4] "*Government* takes into account the results of actions, later on *training* must look to unexecuted intentions."[5]

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[1] *Allgemeine Pädagogik*, Introduction.

[2] *Herbarts Replik gegen Jackmanns Recension der Allgemeinen Pädagogik*. Cf. *Umriss*, § 44.

Government is, as Herbart from his own experience as a tutor was forced to recognise,[6] a necessary evil, doubtless better than anarchy, but its defect is that it weakens while education seeks to strengthen. It implies external constraint or control, whereas *training* develops self-control and self-restraint. The former is therefore negative and inhibitive: the latter is positive and purposive. The distinction has significance in Education, for the term "Discipline" is in English generally employed to convey what by Herbart is characterised as *government*. A "well disciplined" school may be the worst possible institution for the development of character, since it may leave no opportunities for the practice of such actions as are initiated by the pupil's own motives, nor afford occasion for the exercise of self-discovery and the discipline of self-mastery. It does not train the pupil to the right use of such freedom as he will later enjoy; it secures an immediate appearance of docility by paralysing the pupil's powers of initiative, and it invites an equally violent reaction that destroys any unity of character which the pupil might otherwise develop. Discipline in Herbart's sense of *training*, not in the sense of *government*, should be the aim of every teacher who desires to play a part in the formation of character.

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[1] *Umriss*, § 43.

[2] *Ibid.*, § 42. Cf. § 126.

[3] *Allgemeine Pädagogik*, bk. iii, ch. v, § 111; bk. iii, ch. v, § 1.

[4] *Umriss*, § 161; *Allgemeine Pädagogik*, bk. iii, ch. v, § 2.

[5] *Allgemeine Pädagogik*, bk. iii, ch. v, § 2.

[6] *Berichte an Herrn von Steiger*, iii.

Instruction and *training* have this in common that each makes for education and hence for the future.[1] They are distinguished nevertheless as means and end; "instruction without *training* would be means without end, *training* (character forming) without instruction end without means."[2] "*Training* alone," as Herbart maintains, "cannot form character; character proceeds from within, consequently to fashion a character one must know how to determine the inner. This is secured above all else by instruction. If Pedagogy is to be built on the concept of morality, then instruction must first of all be determined, and thereafter *training* can be added as a helpmate."[3] The inner, to which Herbart here refers, he explains in the *Allgemeine Pädagogik*[4] to be the circle of thought; "The circle of thought contains the store of that which by degrees can mount by the steps of interest to desire, and then by means of action to volition. The whole inner activity, indeed, has its abode in the circle of thought. Here is found the primordial life, the primal energy; here all must circulate easily and freely, everything must be in its place ready to be found and used at any moment; nothing must lie in the way, and nothing like a heavy load impede useful activity." In the same chapter of the *Allgemeine Pädagogik* which Herbart has characterised as the vantage point from which the whole work should be viewed, he repeats that in the culture of the circle of thought the main part of education lies,[1] that the chief seat of the cultivation of character is the culture of the circle of thought.[2] This principle of the determination of the inner aspect of character by means of instruction is Herbart's chief contribution to educational thought, and proves how futile it is, from his standpoint, to oppose education or the training of character to instruction.

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[1] *Umriss*, § 57.
[2] *Aphorismen*, cxcii.
[3] *Ibid.*, xv.
[4] *Allgemeine Pädagogik*, bk. iii, ch. iv, § 2.

Instruction consequently acquires the place of first importance in Herbart's educational theory. "The chief means of positive education lies in instruction taken in its widest sense," he says,[3] and again:[4] "It will be seen when the task of setting forth the whole of virtue is reviewed in its completeness that the main things are accomplished by instruction."

Instruction has two starting points, experience and intercourse, the natural and the social environment. Its function is to complement these.[5] It furnishes the youth with whole masses of thought which he could not acquire for himself. "It grafts valuable shoots on to wild stems."[6] When we seek to specify more definitely the different aspects of instruction we find that we cannot do so according to the mental faculties which are trained, since these are non-existent; nor yet according to the special sciences, since these are only means to an end, and like the means of nutrition must be employed according as the individual's disposition requires and as opportunity offers; in addition they need to be adapted to pedagogical requirements. For an analysis of instruction recourse must then be had to a classification of the temperamental reactions induced in the pupil by different forms of instruction, or to the various types of interest which it is desired that he will acquire.[1] These interests, or types of human activity are, according to Herbart,[2] the empirical, the speculative, and the aesthetic, representing different attitudes to our natural environment or different aspects of experience; and the sympathetic, the social, and the religious representing different attitudes in social intercourse or different aspects of our spiritual environment.[3]

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[1] Bk. iii, ch. iv, § 2. [2] Bk. iii, ch. iv, § 3. [3] *Aphorismen*, xxi.

[4] *Replik gegen Jackmanns Recension der Allgemeinen Pädagogik.*

[5] *Aphorismen*, cii; *Allgemeine Pädagogik*, bk. ii, ch. iv, § 1; *Umriss*, § 78.

[6] *Aphorismen*, xxi.

While the ultimate aim of instruction may be regarded as virtue or morality, for practical purposes a nearer aim must be interpolated. This immediate aim is interest.[4] Interest, for Herbart, is the state of consciousness which accompanies the process of self-realisation of a presentation. "Interest, in common with desire, will and the aesthetic judgment, stands opposed to indifference; it is distinguished from those three in that it neither controls nor disposes of

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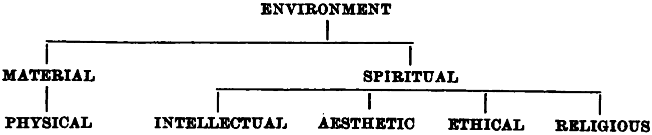
[1] *Replik gegen Jackmanns Recension.*

[2] *Allgemeine Pädagogik*, bk. ii, ch. iii; *Umriss*, § 83.

[3] A more satisfactory analysis for educational purposes might be



[4] Fichte in his *Reden an die deutsche Nation* makes morality the end of education and mental culture the means, the connecting concept being ethical love.

its object, but depends upon it."[1] The state of mind termed Noticing (*Merken*) tends, when itself aroused by an external object, to excite in mind a new presentation. When the latter in its efforts at self-realisation is retarded, interest hovers in Expectation (*Erwarten*). When the patience which lies in Expectation is exhausted, the state of mind changes to such an extent that the mind loses itself more in the future than in the present, and out of interest grows desire. Desire leads to wanting an object, and Wanting (*Fordern*), when the organs are at its disposal, issues in action (*Handeln*). Interest appears when this chain of activity is broken off, and desire and action are denied expression. Such is the psychological basis of Herbart's concept of interest.[2] We may consequently infer that presentations which are indifferent or inactive do not arouse interest, and that interest disappears with the exhaustion or satisfaction of the process. Interest is thus a concomitant of the process of the fulfilment or realisation of an idea or circle of ideas by an extension of itself or through action, when this process is working smoothly, not baulked by unnecessary or insurmountable obstructions and not attaining its end immediately and without effort. The interest on the value of which Herbart insists is thus an apperceptive interest, and effort is a condition of the existence of such interest. It is the work of instruction to arouse this interest, and it is only he who seeks to extend his knowledge who is interested in it.[3]

By making interest the immediate aim of instruction we do not, as is popularly supposed, emasculate education; interest is not to be confused with amusement, and it is not for lack of warning by Herbart that their identification has gained currency. "The teacher," he says,[1] "should not be misled into turning instruction into play, nor designedly into work; he sees before him a serious business and tries to forward it with gentle but steady hand." "That which is too simple," he repeats,[2] "must be avoided"; and again,[3] "Instruction must be comprehensible and yet difficult rather than easy, otherwise it causes *ennui*, or," as his English interpreter explains,[4] "we find that so far from enervating the pupil, the principle of interest braces him up to endure all manner of drudgery and hard work . . . The theory of interest does not propose to banish drudgery but only to make drudgery tolerable by giving it a meaning."

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[1] *Allgemeine Pädagogik*, bk. ii, ch. ii, § 1.

[2] Cf. *Allgemeine Pädagogik*, bk. ii, ch. ii, § 2.

[3] Cf. *Umriss*, § 62.

The type of interest which Herbart demands is characterised by the term many-sided. A many-sided interest or an all-round culture would take account of the different classes of interest or forms of human activity enumerated above. "Many-sidedness does not stand in opposition to one-sidedness but to fickleness," says Herbart in one of his aphorisms,[5] while in the *Umriss*[6] he says that discursiveness, no less than one-sidedness, forms an antithesis to many-sidedness. While therefore Herbart insists on many-sidedness he does not oppose the development to its fullest capacity of any ability with which an individual happens to be highly endowed. "Every man must have a love for all subjects, each must be a virtuoso in one," he explains.[7] "But the particular virtuosoship is a matter of choice; whereas the manifold receptivity which can only grow out of manifold beginnings of one's own individual efforts, is a matter of education." What Herbart seeks to avoid is that individuality should develop into mere idiosyncrasy. Where this occurs, a state of society results in which "each brags of his own individuality and no one understands his fellows."[1] To this end the concept interest requires to be further qualified by the term evenly-balanced or equilibrating. Consequently, "the more individuality is blended with many-sidedness, the more easily will the character assert its sway over the individual."[2]

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[1] *Allgemeine Pädagogik*, bk. ii, ch. vi.

[2] *Umriss*, § 77, note.

[3] *Allgemeine Pädagogik*, bk. iii, ch. v, § 3.

[4] J. Adams, *Herbartian Psychology*, pp. 262, 263; also J. Dewey, *Educational Essays*, "Interest in Relation to Training of the Will."

[5] *Aphorismen*, l. Cf. *Allgemeine Pädagogik*, bk. i. ch. ii, § 2.

[6] § lxv.

[7] *Allgemeine Pädagogik*, bk. i, ch. ii, § 2.

Interest depends partly on native capacity, but partly also on the subject-matter of instruction.[3] Not all instruction is, he thinks, educative; the types of instruction which, in Herbart's opinion,[4] are not educative, are those which afford only temporary pleasure or light entertainment, and such studies as stand isolated and do not lead to continued effort; "Volition," he explains,[5] "has its roots in the circle of thought, not, indeed, in the details one knows, but certainly in the combinations and total effect of the acquired presentations." The knowledge, then, that influences the will does not consist of isolated facts but of closely integrated systems. "The proof of a perfect instruction," he says,[6] "is exactly this—that the sum of knowledge and concepts which it has raised by clearness, association, system and method to the highest flexibility of thought is at the same time capable as a mass of interests of impelling the will with its utmost energy, by virtue of the complete interpenetration of all its parts. Because this is wanting, culture is often the grave of character."

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[1] *Ibid.*, bk. ii, ch. iv. § 1.

[2] *Ibid.*, bk. i, ch. ii, § 6.

[3] *Umriss*, § 125.

[4] Cf. *Umriss*, § 126.

[5] *Umriss*, § 58.

[6] *Allgemeine Pädagogik*, bk. iii, ch. iv, § 5, note.

"Great moral energy," he repeats,[1] "is the result of broad views, and of whole unbroken masses of thought." As whatever remains isolated is of little significance in education Herbart emphasises the correlation of studies.[2]

Herbart also distinguishes between two types of presentations, those which have to be designedly reproduced and those which emerge spontaneously in mind.[3] The latter have greater effect in creating interest and in influencing conduct. "Instruction in the sense of mere information giving," he consequently states,[4] "contains no guarantee whatever that it will materially counteract faults and influence existing presentation-masses." The distinction which Herbart draws between the two classes of presentations is analogous to the division of literature into the two kinds, the informing kind and the inspiring kind, or the literature of knowledge and the literature of power.[5] In this distinction would lie Herbart's answer to the question which Spencer puts in the forefront of his work on Education, namely, "What knowledge is of most worth?" Spencer maintained that acquirement of every kind had two values, value as knowledge and value as discipline. Herbart, denying as a consequence of his rejection of the doctrine of mental faculties the value as discipline, would distinguish the knowledge that leads to interest from the knowledge that consists of mere information, and reply to Spencer's question that the knowledge which creates interest, the knowledge of character-forming value, is the knowledge of most worth.

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[1] *Allgemeine Pädagogik*, bk. iii, ch. iv, § 5.

[2] *Umriss*, § 58, note. [3] *Ibid.*, § 71.

[4] *Ibid.*, § 35.

Fichte in his *Reden* demands that in the new education which was to be the chief means to Germany's regeneration "no knowledge shall remain dead."

[5] Arnold Bennett, *Literary Taste: How to form it*; and William Watson, *Pencraft*.

The distinction between the two kinds of knowledge, the informing and the inspiring kind, or between the designedly reproduced and the spontaneously emerging class of ideas, is not absolute, for Herbart states[1] that "presentations that must by effort be raised into consciousness because they do not rise spontaneously, may become spontaneous by gradual strengthening. But this development we cannot count on unless instruction, advancing step by step, bring it about." He would thus maintain that it is the duty of the teacher to make the "informing" kind of knowledge also "inspiring," to present it in such a manner as to arouse the pupil's interest in the subject-matter.

When the subject-matter is selected, it must be adapted to teaching requirements. Various arrangements are possible, constituting different methods of exposition. These, according to Herbart,[2] fall into two main classes, the synthetic and the analytic. The former again divides into the purely presentative and the strictly synthetic.

The object of that part of synthetical instruction to which the name purely presentative is given is said by Herbart[3] to be twofold; it must supply the elements and prepare their combination, that is, the teacher provides the material and determines the order and arrangement of instruction. Such instruction which builds with its own stones is alone capable of erecting the entire structure of thought which education requires;[1] it must be begun early, and its end is not to be found. It may with advantage be employed in the teaching of literature by stories, and in descriptions of historical incidents and geographical scenes. It has but one law—to describe in such a way that the pupil believes that he sees what is described.[2]

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[1] *Umriss*, § 71.

[2] Cf. *Allgemeine Pädagogik*, bk. ii, ch. v; *Umriss*, § 106 *et seq*. For analogous classification of forms of instruction see J. Adams, *Exposition and Illustration*, pp. 59-60.

[3] *Ibid.*, bk. ii, ch. v, § 1.

In the strictly synthetic form of instruction the teacher avails himself of the ideas which the pupil already possesses to erect in the pupil's mind, according to his own plans, new mental constructions. The typical illustration of this method is to be found in mathematical teaching.

Were the pupil's knowledge wholly derived from the teacher's synthetic presentation it would be free from error, but as much of it is acquired in an irregular manner out of school it contains elements which are wrongly comprehended or wrongly related; hence the need for analytic instruction which strives to eliminate from the pupil's mind wrong ideas, to make the ideas which he possesses clearer and more definite, and to arrange them in an orderly and systematic fashion. As in strictly synthetic exposition the pupil here also provides the material; but since analysis must accept the material as it finds it, limits are set to this form of exposition.[3] Such analytic instruction is hardly ever an end in itself but is usually a stage necessary for further synthesis.[4]

No matter what material for instruction is selected or what method of exposition is adopted, the same sequence must be followed in teaching if interest is to ensue. This sequence is determined by the conditions governing the development of knowledge. An analysis of the growth of knowledge discloses a double movement: (1) Concentration

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[1] *Allgemeine Pädagogik*, bk. ii, ch. v, § 1.

[2] *Ibid.*

[3] Cf. *Ibid.*, bk. ii, ch. v

[4] Cf. *Umriss*, 110-124.

(*Vertiefung*) or absorption in a subject; this alone would, however, produce one-sidedness, hence the need for (2) Co-ordination (*Besinnung*) or systematisation of the results of concentration. In his *Lehrbuch zur Psychologie*[1] Herbart characterises this twofold process by the metaphor of mental respiration.

In one of his aphorisms[2] he explains the development thus: "Concentration occurs when a thought or series of thoughts becomes so powerful within us that it suppresses those presentations which usually constitute consciousness. Co-ordination occurs when the ordinary contents of our consciousness come to the front. The expression 'ordinary consciousness' is obviously vague, but this indicates that concentration as well as co-ordination can be very partial and consequently may be very multiform. Concentration does not always suppress all the contents of consciousness, nor does co-ordination reestablish them all." In the *Allgemeine Pädagogik*[3] he expresses the meaning of Concentration in more popular parlance by saying that he who has at any time given himself up *con amore* to any object of human activity understands what concentration means. Co-ordination is necessary to preserve the unity of consciousness, to collect and combine the results produced by concentration.

As these two concepts are too general for practical purposes Herbart finds it necessary to subdivide Concentration into Clearness and Association, and Co-ordination into System and Method. Clearness, Association, System, and Method thus become Herbart's formal steps in teaching.[4]

"In order always to maintain in the mind's coherence," he argues,[5] "instruction must follow the rule of giving equal weight in every smallest possible group of its objects to concentration and reflection; that is to say, it must care equally and in regular succession for clearness of every particular, for association of the manifold, for coherent ordering of what is associated, and for a certain practice in progression through this order. Upon this depends the distinctness which must rule in all that is taught."

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[1] § 210, note. [2] *Aphorismen*, 1. [3] Bk. ii, ch. i, § 1.

[4] Cf. *Allgemeine Pädagogik*, bk. ii, ch. i, § 2; *Umriss*, §§ 68-69.

[5] *Allgemeine Pädagogik*, bk. ii, ch. iv, § 2.

Under Clearness Herbart includes the analysis and synthesis of the given. It is equivalent to the so-called Herbartian step of Presentation. Through Association the new knowledge presented to the pupil is connected with the old; and Association accordingly implies the apperceptive process and is analogous to the Preparation stage of the Herbartian five formal steps. Its purpose is to secure a proper orientation of the subject to be taught. "For Association," Herbart tells us,[1] "the best mode of procedure is informal conversation, because it gives the pupil an opportunity to test and to change the accidental union of his thoughts, to multiply the links of connection, and to assimilate, after his own fashion, what he has learned. It enables him, besides, to do at least a part of all this in any way that happens to be the easiest and most convenient." Association prepares the way for System, which is "the perfect order of a copious co-ordination." "By exhibiting and emphasising the leading principles," Herbart adds, "System impresses upon the minds of pupils the value of organised knowledge."[2] In the generally accepted Herbartian tradition system is termed Generalisation. Furthermore, a system is not to be learned merely; it is to be used, applied, and often needs to be supplemented by additions inserted in appropriate places.[3] This application Herbart terms Method, whereas by his successors the selfexplanatory term Application has been reserved to denote this extension of System.

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[1] *Umriss*, § 69. [2] *Ibid.*, § 69. [3] *Ibid.*, § 68.

These various steps are believed by Herbart to be requisite, one by one, in the order given for every section, small or large, of subjects to be taught.[1] Only when this procedure is adopted are we justified in expecting that interest will be insured. While various educationists have attempted to substantiate this claim,[2] the procedure can be said to be valid only for that form of instruction which Herbart had mainly in view, the aim of which is the acquirement of knowledge; when the aim of the lesson is the development of skill, a different procedure will doubtless be found to be more appropriate.

Herbart's formal steps apply to method-wholes or method-units, not to individual lessons; that is, they are the stages in the exposition of a topic or section of a subject which has a unity and completeness in itself. It is the mechanical application of the formal steps in each and every lesson that has brought the Herbartian method into discredit, and this formalism can best be overcome by a return to the study of Herbart's own writings.

Educators previous to the time of Herbart had made the training of character the end of education, while others had recognised the importance of interest; but it was left to Herbart to connect instruction with character-training through interest, and to make the proper selection of the content of instruction and the right method of presenting the selected content moral duties incumbent on the teacher, and contributing factors in the achievement of the aim which he sets up for himself.

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[1] *Ibid.*, 68. Cf. § 70, also *Allgemeine Pädagogik*, bk. ii, ch. iv, § 2.

[2] *E.g.*, Findlay, *Principles of Class Teaching.*

CHAPTER XI

FROEBEL

By the uninitiated Froebel is regarded as an ardent lover of childhood, the apostle of play in Education and the founder of the Kindergarten, an institution for young children in which paper-folding, mat-weaving, clay-modelling, symbolic games, and action-songs are employed according to a methodical and systematic procedure. For the strict Froebelian, however, these occupations and plays are sacred rites, expressing spiritual principles and possessing deep philosophic significance. Froebel himself lends authority to the interpretation of his disciples, maintaining [1] that "the spirit in which a play is conceived and originated, as well as the spirit in which the plaything is treated and the play played, give to the play its significance and its worth." An exoteric and an esoteric treatment are therefore both possible, and a just exposition of Froebel's doctrine must embrace both views.

Froebel regards man's life as a continuous process of development or of evolution from within. "It is highly important," he affirms,[2] "that man's development should proceed continuously from one point, and that this continuous progress be seen and ever guarded. Sharp limits and definite subdivisions within the continuous series of the years of development, withdrawing from attention the permanent continuity, the living connection, the inner living essence, are therefore highly pernicious, and even destructive in their influence." For the full realisation of this development it is necessary, he continues,[1] "to consider the life of the child and the beginnings of its life in its own true deep significance and subjectivity, as well as in its relation to the totality of life: to consider childhood as the most important stage of the total development of man and of humanity—indeed, as a stage of the development of the spiritual as such, and of the godlike in the earthly and human."

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[1] *Die Pädagogik des Kindergartens*, English trans. under title *Padagogics of the Kindergarten*, by J. Jarvis, p. 34.

[2] *Menschenerziehung*, English trans. under title of *Education of Man*, by W. N. Hailman, § 22, cf. § 24.

Notwithstanding Froebel's insistence on the continuity of development he does not hesitate to distinguish well-marked stages and to set these in opposition one to the other. Thus the period of childhood is characterised as predominantly that of life for the mere sake of living, for making the internal external; the period of boyhood is predominantly the period for learning, for making the external internal.[2] The former is the period of play, the latter of work; "what formerly the child did only for the sake of the activity, the boy now does for the sake of the result or product of his activity";[3] "while during the period of childhood the aim of play consisted simply in activity as such, its aim lies now (in boyhood) in a definite conscious purpose."[1] "If activity brought joy to the child, work now gives delight to the boy."[2]

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[1] *Pedagogics of the Kindergarten*, p. 95. Cf. *Reminiscences of Frederick Froebel*, by Baroness B. von Marenholz-Bülow, English trans. by Mrs. Horace Mann, p. 143: "The earliest age is the most important one for education, because the beginning decides the manner of progress and the end. If national order is to be recognised in later years as a benefit, childhood must first be accustomed to law and order, and therein find means of freedom."

[2] *Education of Man*, § 45.

[3] § 49.

Play is the characteristic activity of childhood: it is, says Froebel,[3] "the highest phase of child-development—of human development at this period; for it is self-active representation of the inner—representation of the inner from inner necessity and impulse. Play is the purest, most spiritual activity of man at this stage, and, at the same time, typical of human life as a whole—of the inner hidden natural life in man and all things. It gives, therefore, joy, freedom, contentment, inner and outer rest, peace with the world. It holds the source of all that is good."

To have educative value the play of the child must not be a purposeless activity; his play impulses must be directed and controlled by the use of definite material necessitating an orderly sequence in the feelings engendered and in the activities exercised. "Without rational, conscious guidance," Froebel is reported to have said,[4] "childish activity degenerates into aimless play instead of preparing for those tasks of life for which it is destined . . . In the Kindergarten the children are guided to bring out their plays in such a manner as really to reach the aim desired by nature, that is, to serve for their development . . . Human education needs a guide which I think I have found in a general law of development that rules both in nature and in the intellectual world. Without law-abiding guidance there is no free development."

To the selection of suitable material Froebel devoted much reflection, with the result that, on philosophical grounds to be explained below, he decided that the sphere in the form of the soft ball should serve as the first gift to the child, and the hard sphere, the cube and the cylinder should constitute the second gift. Several of the remaining gifts result from various subdivisions of the cube. The gifts comprise the material for the various "plays" of the child.

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[1] *Education of Man*, § 49.

[2] *Ibid.*

[3] § 30.

[4] *Reminiscences*, pp. 67-8.

As an illustration of one such play or occupation we shall quote the fourth, which on Froebel's own admission[1] has a peculiar charm for the child:

> "As *cube* I stand here in my place;
> As *surface* now, I show my face,
> Yet always am the same—
> I like this pretty game.
> Now without delay
> Divide me in your play;
> Making fleetly,
> But yet neatly
> Two quite equal parts.

"While the mother or Kindergartener sings this rhyme, she divides the whole *cube* by one motion into two equal parts. The division may be made either vertically or horizontally. In both cases the result is the production of two square prisms, the positions of which vary according to the manner of division. While the mother represents these, she sings in the person of the square to the child:

> "From above if you divide me,
> Both the halves will be upright;
> Straight across if you divide me
> Halves recumbent meet your sight.
> In position not the same;
> But in size they are the same,
> Each is like the other half.

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[1] *Pedagogics of the Kindergarten*, p. 183.

"If one now wishes to represent more strikingly to the child that the size and form remain the same in different positions, one places the halves with their broad sides now upon one another, thus doubling their height; now side by side, thus doubling their length. In both cases the action is interpreted by song:

Place one half upon one half,
The form is high we see.
Lay one half beside one half,
A long form this must be.
Yet equal form and size do show
In each position as we know."

Froebel, in addition to such "plays" with the gifts, introduced movement plays or games in which the children's movements represent a winding brook, a snail, a wheel, etc.[1] About the second year, certainly in the third year,[2] there are substituted for the gifts other materials required for such occupations as modelling, paper-folding, stick-laying. These materials and occupations are also supposed by Froebel to envisage the laws of life and nature.

While play is the characteristic activity of childhood, work is that of boyhood. Interest in the process gives place to interest in the product. But, for Froebel, there is a unity comprehending this opposition between play and work, for both he regards as means to the individual's self-realisation; "Man works," he affirms,[3] "that his spiritual divine essence may assume outward form, and that thus he may be enabled to recognise his own spiritual, divine nature and the innermost being of God." That the real significance of work is its contribution to the individual's self-realisation is the doctrine of many social reformers; only when this ideal is realised can man be expected to find blessedness in labour, as Carlyle preached. In many forms of activity there is at present so little opportunity for spontaneity and self-expression, that nothing but contract and obligation can avail to keep people steadily engaged in them. "They are happy men," as Bacon says, "whose natures sort with their vocations;" and it is only in the higher arts that an approximation to Froebel's ideal becomes possible, that work and play are identified.

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[1] *Pedagogics of the Kindergarten*, ch. xiv.

[2] *Education by Development*. The second part of the translation of *Die Pädagogik des Kindergartens*, p. 61.

[3] *Education of Man*, § 23.

Froebel's demand for the inclusion of manual work in the school curriculum is based on this idealistic conception of work. Manual work is a necessary condition of the realisation of the pupil's personality; through it he comes to himself. "Every child, boy, and youth, whatever his condition or position in life, should devote daily at least one or two hours to some serious activity in the production of some definite external piece of work . . . Children—mankind, indeed—are at present too much and too variously concerned with aimless and purposeless pursuits, and too little with work. Children and parents consider the activity of actual work so much to their disadvantage, and so unimportant for their future conditions of life, that educational institutions should make it one of their most constant endeavours to dispel this delusion. The domestic and scholastic education of our time leads children to indolence and laziness; a vast amount of human power thereby remains undeveloped and is lost."[1]

It must not be assumed, however, that Froebel ignored the other subjects of the curriculum and the later stages of education; while in the writings he advocates manual instruction he also recommends the introduction of such subjects as Drawing, Nature Study, and School Gardening. He insists, like Herbart, on an all-round development as the aim of education, and as the main divisions of an educational curriculum he enumerates (*a*) Religion and Religious Instruction, (*b*) Natural Science and Mathematics, (*c*) Language, (*d*) Art and Objects of Art, remarking [1] that human education requires the knowledge and appreciation of religion, nature, and language; and with reference to the aim of instruction in art he states: [2] "Its intention will not be to make each pupil an artist in some one or all of the arts, but to secure to each human being full and all-sided development."

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[1] *Education of Man*, § 23, cf. § 87.

Froebel's fame nevertheless rests on the Kindergarten, to the establishment of which he devoted the later part of his life. He was more fortunate than Pestalozzi in his coadjutors, and some of them could more fully and more faithfully than Froebel himself expound the principles and plays of the Kindergarten. Notwithstanding the issue of a rescript [3] prohibiting the establishment of Kindergartens in Prussia as dangerous to society—with their "three-year-old demagogues," as a comic paper of the day explained,—Froebel had the satisfaction before his death of obtaining a glimpse of that promised land to which he had set out to lead the children of the world.

Froebel with as much truth as Herbart might have declared that his educational principles were nothing apart from his philosophy; [4] indeed, without any justification for his action but not without some justification for the reason he gives for it, von Raumer defended his rescript prohibiting the establishment of Kindergartens in Prussia on the ground that the principle consisted in laying at the foundation of the education of children a highly intricate theory.[1]

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[1] *Education of Man*, § 77.

[2] § 85.

[3] In 1851. Cf. *Reminiscences*, p. 200 *et seq.*

[4] In a letter written at Dresden, 28th January, 1839, he says, "You, my dear wife, could have told this man that, as this system of education,

The philosophy which Froebel inherited, and by which through his connection with the University of Jena[2] he could not but be influenced, was the idealism initiated by Kant and developed by Fichte, Schelling, and Hegel. A short excursus into this philosophy is requisite to obtain the right orientation for the proper appreciation of Froebel's doctrines, although at the outset it must be premised that, by reason of his irregular training, Froebel neither adopted nor developed a consistent philosophic attitude. He continued as he himself explains in a letter to Krause[3] "without ceasing to systematise, symbolise, idealise, realise and recognise identities and analogies amongst all facts and phenomena, all problems, expressions, and formulas; and in this way, life with all varied phenomena and activities become more and more free from contradictions, more harmonious, simple and clear, and more recognisable as a part of the life universal." Although amongst educationists Froebel may pass for a philosopher, he would never be so reckoned by philosophers.

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as he said, is clear and palpable to the youngest child, it also contains in itself all Philosophy." *Froebel's Letters*, English trans. by Emily Shirreff, p. 74.

[1] Cf. *Reminiscences*, p. 199.

[2] Cf. *Autobiography*, English trans. by Michaelis and Moore, p. 29: "I studied nothing purely theoretical except mathematics; and of philosophical teaching and thought I learnt only so much as the intercourse of university life brought with it; but it was precisely through this intercourse that I received in various ways a manysided intellectual impulse."

[3] *Autobiography*, p. 107.

The task which Kant set himself was to determine the conditions of knowledge or of experience. He found that it was impossible to account for experience as a mere reflection of nature. Hume had tried this, and ended in scepticism. The other alternative then was that nature must conform to our method of conceiving it. The world of science is found to be arranged in space and time, and its phenomena are connected in a casual series; this arrangement and determination, Kant maintains, result from the fact that the mind is so constituted that only thus is experience possible for it. The world apprehended by the forms of space and time and conceived in accordance with the categories of substance, cause, etc., Kant terms the phenomenal world. He leaves open the possibility of another form of experience by postulating the existence of the noumenal world, a world which cannot be known through perception and understanding, but which might be experienced by an intuitive intelligence.

When we attempt to apply the forms of perception and the categories of the understanding beyond the sphere of the phenomenal world, that is, beyond the world of science, we find that such application gives rise to antinomies or contradictions. We can prove, for example, both that the world had a beginning, and that it had no beginning; that it had a First Cause, and that it had no First Cause; that the soul is a simple substance, and that it is not so. The conclusion which Kant draws from the antinomies is that these conceptions of cause, substance, etc., are valid only within the phenomenal sphere; it is their application beyond this sphere that causes the antinomies; causality is, for example, limited to the scientific world; in another form of experience or in another sphere, for example, the moral, freedom may be possible.

Kant in his *Critique of Pure Reason* thus restricted the application of the conceptions of cause, substance, space, etc., to the scientific realm, granting nevertheless the possibility of the existence of another realm where freedom would be possible, and the immortality of the soul and the existence of God would not be self-contradictory conceptions. Opposed to the phenomenal world he set the noumenal world, noumena being regarded as mere limiting conceptions implying the possibility of a form of experience other than the material and scientific.

In the *Critique of Practical Reason* Kant maintains that the noumena which in the *First Critique* were merely possible objects in a non-scientific world have positive significance and content. We find in the ethical sphere the conception of duty, a positive conception which in its nature demands freedom. Thus for Kant there are two spheres in which man lives, the phenomenal or scientific world governed by the conception of cause, and the noumenal or ethical world characterised by freedom. Kant fails to relate these two spheres properly to each other, but to him is due the credit of demonstrating that either alone is incomplete. He made naturalism and materialism as adequate philosophical explanations untenable, and by establishing the priority of the ethical life and the reality of the spiritual realm laid the foundation of modern idealism.

The educational corollary of Kant's doctrine is that in opposition to, but not incompatible with, a mechanical concatenation of external phenomena stands a free inner synthetic or creative activity.[1] Although Kant's method was the "critical" and not the psychological, the priority assigned by him to the inner and determining aspect of experience gives the necessary philosophical support to the psychological treatment of Education which is characteristic of succeeding educational thought.

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[1] Froebel in his *Autobiography* (p. 93) states that even in military exercises "I could see freedom beneath their recognised necessity"!

The task set to his successors was to resolve the dualism inherent in Kant's system. His naturalistic and realistic interpreters, on the one hand, relying mainly on the *First Critique,* insisted on the connectedness and completeness of the phenomenal world, and resolved the realities of the noumenal or intelligible world—God, freedom, and immortality—into mere serviceable illusions. Fichte, on the other hand, relying on the supremacy of the practical reason, emphasised the noumenal character of the intelligible world to such an extent as to reduce the phenomenal world to a mere appearance or illusion. The free activity of Reason or Self-Consciousness could not, in Fichte's view, be conditioned by anything alien to itself. He consequently assumed that the object which consciousness demanded as a necessary condition of its own existence and progressive realisation was not a mere sensuous element externally "given," but a product of the self-estranging process of consciousness itself.[1]

Fichte's influence on education, more especially on German education, was considerable; this influence is, however, derived from his popular addresses, not from his metaphysical doctrines. In his *Reden an die deutsche Nation* delivered in Berlin in 1807-8, when Prussia, after its defeat at Jena, was in its adversity willing to attend to its philosophers and to consider their idealistic views, Fichte contended that the regeneration of Germany could only be achieved by a complete change in the existing educational system. He demanded that the whole people should be educated without distinction of class, but whereas he commended favourably the efforts of Pestalozzi, Fichte differed from Pestalozzi in maintaining that education should be under the control of the nation and not of the home. As Kant taught that nature must conform to the mind's method of knowing, so Fichte maintained that for the new education the real world was the world comprehended through thought, and that to this world and not to the world of sense must the child be first introduced.[1] The training in Anschauung which Pestalozzi recommended, Fichte approves of, although he criticises the objects on which Pestalozzi exercised this training. Fichte also agrees that one of the chief functions of the new education is to stimulate the development of the mental powers, and, like Herbart, he makes morality the end of education and mental culture the indispensable means to the attainment of this end.[2] The discourses are undoubtedly inspiring, but the exclusively national character of Fichte's appeal and of his ideal, and the absolute surrender of the individual to the nation demanded in them detract from their value.

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[1] For account of Fichte's philosophy see R. Adamson's *Fichte.*

While Schelling's standpoint was at the outset practically identical with that of Fichte, in his later writings he sought to correct the overstatement of Fichte which tended to reduce nature to a nonentity, by insisting that the Absolute equally manifests itself in nature and in spirit, and that the intelligence could find itself in nature as well as in itself.

That Froebel was influenced by Schelling is beyond doubt, for in his *Autobiography*[3] he admits that he was acquainted with Schelling's work *On the World Soul*, stating "what I read in that book moved me profoundly, and I thought I understood it." In this work "Schelling," it is

[1] Neunte Rede. [2] Dritte Rede. [3] p. 40.

said,[1] "seeks mainly for a principle which shall reduce the whole of nature to unity. This principle must not be sought in any transcendental, supernatural region, whether called God or Fate, but in nature itself. A principle such as is sought Schelling seemed to find in a conception of matter as a unity of opposite forces, and hence he naturally attempted to reduce all the varied phenomena of nature to the single principle of a force that always manifests itself in opposite directions. Accordingly nature must no longer be divided up into separate groups of phenomena, with a special kind of force for each—mechanical, chemical, electrical, vital,—but in all must be seen the same force in various forms, the same unity in duality . . . In thus making the idea of force the supreme principle of nature, Schelling has manifestly stripped that conception of its purely mechanical connotation, and thus it becomes practically identical with the idea of nature as an eternal process or manifestation of self-activity." Schelling makes the artistic view of nature wherein reality is taken as a living whole, as the expression throughout of spirit, the highest reach of thought, and the final attitude of speculation; Froebel likewise employs aesthetic metaphor to explain the relation of the world to God. Thus he states:[2] "The relation of nature to God may be truly and clearly perceived and recognised by man in the study and elucidation of the innermost spiritual relation of a genuine human work of art to the artist."

In Hegel the idealism initiated by Kant finds its consummation and completest expression.[3] When the close analogy between his law of opposites with their reconciliation in a higher unity and the dialectual movement of thought in Hegel's philosophy was indicated by a visitor to his Kindergarten at Liebenstein in 1851, Froebel, while not disclaiming acquaintance with Hegel's principle, is reported [1] to have replied that he did not know how Hegel had formulated and applied this law, as he had had no time for the study of the latter's system. This may well have been the case, since the idea of antitheses and their reconciliation in a higher synthesis is not peculiar to Hegel but is common to Fichte and Schelling.

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[1] J. Watson: *Schelling's Transcendental Idealism*, pp. 95-6.

[2] *Education of Man*, § 63.

[3] For philosophy of Hegel see E. Caird's *Hegel*.

With Krause, a philosopher almost unknown to English students of philosophy, Froebel was acquainted and maintained a correspondence. To one of Froebel's letters to Krause [2] we owe a knowledge of many of the autobiographical details of Froebel's life; that Krause's writings and his acquaintance with Froebel had an influence upon the latter, is acknowledged by Baroness B. von Marenholz-Bülow [3] in her *Reminiscences of Friedrich Froebel*, who explains that Krause's writings even lent expression to Froebel's views, in formulating which the latter experienced much difficulty. For Krause, "this gentlest and humanest thinker of the nineteenth century," [4] everything exists in God. The world is not, however, God Himself, but it is only in and through God. Reason and Nature are the two highest hemispheres of the world as they exist in God, bright and powerful as God's actual image and likeness. Nature is as holy, as worthy, as divine as Reason. The life of Reason is not lawless caprice nor the life of Nature dead necessity; in both are recognised divine freedom and beauty. A parallelism obtains between the power and works of Nature and Reason. This parallelism is necessary and abiding, because both Nature and Reason exhibit the same essential being of the Deity. Man is the living unity of the two, and the inmost and most glorious part of that harmony of reason and Nature which is established by God.

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[1] *Reminiscences*, p. 225.

[2] 24th March, 1828. See *Autobiography*, English trans., pp. 104-126.

[3] *Reminiscences*, English trans., p. 247.

[4] K. C. F. Krause, *The Ideal of Humanity and Universal Federation*. English trans. by W. Hastie. Translator's Preface.

The further movement of Krause's thought may be inferred from Baroness von Marenholz-Bülow's statement of his relation to Froebel. "The theory in which Froebel and Krause agreed especially," she says,[1] "is the idea of the analogy existing between organic development in nature and organic development in the spiritual world, and according to which the historical development of mankind had proceeded, obeying the same laws as those of nature and its organisms. The same logic of the one all-penetrating Divine reason rules in both, unconscious in the one (nature), conscious to itself in the other (mind). Therefore are the opposites ruling everywhere, not absolute, but relative, and always find connection or solution in the process of life."

In addition to the philosophical influences which we have indicated, it may be mentioned that there is considerable affinity between Froebel's ideas and those of an earlier philosopher, namely, Leibniz. An attempt has been made to connect the rationalism and monadism of Leibniz with the doctrines of Herbart,[2] and with as much justification the thesis of the correlation of the views of Leibniz and of Froebel could be maintained. The problem of metaphysics is to render the unity and continuity of experience compatible with the multiplicity and reality of individually existing objects. Leibniz maintained that the individual was real, that individuals could only preserve their individuality by being mutually exclusive, and that each uniquely reflected the whole from its own specific standpoint. Such real ultimate elements of existence Leibniz termed monads. These monads differing from one another qualitatively and not merely quantitatively, and constituting a graded series, represent in their totality the universe from every possible point of view. The monads are in no way affected from without, but each spontaneously unfolds itself according to its own immanent and original nature. The only view of development compatible with this conception of the ultimate constituents of reality is that of preformation. "According to the theory of preformation, adopted by Leibniz, the germ contains in miniature the whole plant or animal, point for point, and accordingly the 'form' of the plant or animal exists in the spermatozoon in a contracted or 'enveloped' state, and it has existed since the beginning of time."[1] It is this view of development that Froebel adopts,[2] and he is likewise at one with Leibniz in contending that the whole universe is reflected in every individual unity of existence.[3]

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[1] *Reminiscences*, English trans., p. 248.

[2] J. Davidson, *A New Interpretation of Herbart's Psychology.*

With philosophers like Spinoza, Leibniz, and later idealists, Froebel contends that the Absolute manifests itself in all the varied forms of existence. "Nature, as well as all existing things, is a manifestation, a revelation of God."[1] If this immanence of God in the universe is attained by sacrificing His transcendence, the result is pantheism, and Froebel has frequently been regarded as a pantheist; but by identifying God with the Unity from which issues the all-controlling law of the universe and not with the universe itself he escapes the charge.[2]

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[1] R. Latta, *Leibniz : The Monadology and other Philosophical Writings*, p. 260, note.

[2] Cf. *Pedagogics of the Kindergarten*, p. 5: "The tree germ bears within itself the nature of the whole tree"; p. 6: "The development and formation of the whole future life of each being is contained in the beginning of its existence"; p. 49: "The man already appears and indeed is in the child with all his talents and the unity of his nature."

[3] It is beyond the scope of this work to develop the thesis suggested here, but there are points of correspondence in the early circumstances of Leibniz and Froebel, in their brief attendance at Jena, and in their mathematical interests.

The immanent indwelling of God in the Universe may in addition be so conceived as to annihilate all finite distinctions and all independently existing things; the Many may be completely lost in the One. Fichte by his exaltation of Self-consciousness barely escaped this error, but he always maintained that the Ego as a condition of its self-realisation must posit a non-Ego. Froebel maintains that the inner can only be known through its outer manifestations. "The inner being, the spirit, the divine essence of things and of man, is known by its outward manifestations, accordingly all education, all instruction and training, all life as a free growth, start from the outer manifestations of man and things, and proceeding from the outer, act upon the inner, and form its judgments concerning the inner. Nevertheless, education should not draw the inferences concerning the inner from the outer directly, for it lies in the nature of things that always in some relation references should be drawn inversely. Thus, the diversity and multiplicity in nature do not warrant the inference of multiplicity in the ultimate cause—a multiplicity of gods—

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[1] *The Education of Man,* § 62.

[2] Cf. § 63. "As nature is not the body of God, so, too, God Himself does not dwell in nature as in a house; but the spirit of God dwells in nature, sustaining, preserving, fostering, and developing nature. For does not even the spirit of the artist, though but a human spirit, dwell in his work, sustaining, preserving, fostering and keeping it?"

nor does the unity of God warrant the inference of finality in nature; but, in both cases, the inference lies conversely from the diversity in nature to oneness of its ultimate cause and from the unity of God to an eternally progressing diversity in natural developments."[1]

The relation of the Many to the One Froebel thus conceives to be a relation of mutual dependence; the multiplicity of nature presupposes the unity of God, and the Unity of God the multiplicity of nature. He does not further specify the relationship, but it may be remarked that it is an instance, or rather the typical instance, of his law of opposites which in various forms frequently figures in his pedagogical methods.

In direct contrast to Herbart, who assumed that the mind was built up out of presentations, Froebel maintains that the mind evolves from within. "All the child is ever to be and to become, lies, however slightly indicated, in the child and can be attained only through development from within outward."[2] Although Froebel gives priority to the inner aspect of development, the inner, as is evident from a previously quoted statement,[3] is, unlike Leibniz's monad, affected from without. Were it not so, and were man's inner and divine nature not marred by untoward external influences, the ideal education would be merely passive, non-interfering. "Indeed, in its very essence, education should have these characteristics; for the undisturbed operation of the Divine Unity is necessarily good—cannot be otherwise than good."[4]

This ideal condition of affairs but seldom exists. "Nature," Froebel admits, "rarely shows us that unmarred original state, especially in man; but it is, for this reason, only the more necessary to assume its existence in every human being until the opposite has been clearly shown; otherwise that unmarred original state, where it might exist contrary to our expectation might be easily impaired."[1] When, however, it is clearly established that the original nature of the individual which is in itself good[2] has been marred, then Froebel does not hesitate to prescribe categorical, mandatory education in its full severity.

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[1] *Education of Man*, § 6. [2] § 33. [3] § 6. [4] § 8.

As Kant's imperative was categorical, and his moral law was valid only for a free being who voluntarily imposed it on himself, so for Froebel "in its inner essence the living thought, the eternal spiritual ideal, ought to be and is categorical and mandatory in its manifestations . . . The ideal becomes mandatory only where it supposes that the person addressed enters into the reason of the requirement with serene, childlike faith, or with clear, manly insight. It is true, in word or example, the ideal is mandatory in all these cases, but always only with reference to the spirit and inner life, never with reference to outer form."[3]

As freedom is obedience to a law which is in conformity with our highest nature and as such is self-imposed, or, as Hegel puts it, as "freedom is the truth of necessity," so for Froebel[4] "in good education, in genuine instruction, in true training, necessity should call forth freedom; law, self-determination; external compulsion, inner free-will; external hate, inner love. Where hatred brings forth hatred; law, dishonesty and crime; compulsion, slavery; necessity, servitude; where oppression destroys and debases; where severity and harshness give rise to stubbornness and deceit—all education is abortive. In order to avoid the latter and to secure the former, all prescription should be adapted to the pupil's nature and needs, and secure his co-operation. This is the case when all education in instruction and training, in spite of its necessarily categorical character, bears in all details and ramifications the irrefutable and irresistible impress that the one who makes the demand is himself strictly unavoidably subject to an eternally ruling law, to an unavoidable eternal necessity, and that, therefore, all despotism is banished."

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[1] *Education of Man*, § 8.

[2] Cf. § 51. See also *Reminiscences*, p. 90: "Surely the nature of man is in itself good."

[3] § 12.

[4] *Ibid.*

The function of the individual is to unite and harmonise the opposing elements of experience; to use the language of Hegel's dialectic, he is to be the synthesis transcending and reconciling the opposition of thesis and antithesis. Thus, as Froebel expresses it, "the destiny of the child as such is to harmonise in his development and culture the nature of his parents, the fatherly and motherly character, their intellectual and emotional drift, which, indeed, may lie as yet dormant in both of them, as mere tendencies and energies. Thus, too, the destiny of man as a child of God and of nature is to represent in harmony and unison the spirit of God and of nature, the natural and the divine, the terrestrial and the celestial, the finite and the infinite. Again, the destiny of the child as a member of the family is to unfold and represent the nature of the family, its spiritual tendencies and forces, in their harmony, all-sideness, and purity; and, similarly, it is the destiny and mission of man as a member of humanity to unfold and represent the nature, the tendencies and forces, of humanity as a whole." This synthesising activity of the child is but an example of a general tendency characteristic of all existing things. Thus, says Froebel, "everything is of divine origin. Everything is, therefore, relatively a unity, as God is absolute unity. Everything, therefore, inasmuch as it is—though only relatively—a unity, manifests its nature only in and through a triune revelation and representation of itself, and these only in and through continuously progressive, hence relatively all-sided development."[1]

Descartes, as we have indicated in dealing with Rousseau, resolved existence into the two spheres, mind and matter. Rousseau recognised that a third ultimate factor, namely force, was necessary to explain the diversity of nature. Froebel, when he seeks to explain the form of natural objects, follows Rousseau in ascribing to force this diremptive tendency; "the peculiar nature and appearance, the structure and form of each thing, are always found to rest ultimately upon the nature of force, as the connecting unit from which all individuality and diversity proceed."[2] "Now, since force develops and diffuses itself in all directions equally, freely, and unimpeded, its outward manifestation, its material resultant, is a *sphere* . . . In all the diversity and amid the apparently most incompatible differences of earthly and natural structures, the sphere seems to be the primitive form, the unity from which all earthly and natural forms and structures are derived. Hence, too, the sphere resembles none of the other forms, and yet essentially contains the possibility and the law of all of them; it is, at the same time, formless and the most perfect form. Neither point nor line, neither plane nor side, can be discerned on its surface; yet it is all-pointed and all-sided, contains all the points and all the lines, etc., of all earthly structures and forms, not in their possibility alone, not even in their actuality."[1] Here we have Froebel's metaphysical derivation of the first gift, the sphere. Whatever we may think of the value of such a deduction as Froebel offers, the sphere is undoubtedly on psychological grounds an earlier and better known concept to the child than the square recommended by Pestalozzi, or the triangle of Herbart.

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[1] *Education of Man*, § 62. Cf. § 25: "Everything and every being comes to be known only as it is connected with the opposite of its kind and as its unity, its agreement with its opposite, is discovered." Cf. *Education by Development*, p. 36.

[2] § 67.

When the force which equally active in all directions constitutes the sphere predominates in the direction of one of the dimensions—height, length, or breadth—it produces according to Froebel a number of variations of crystalline form.[2] Of the analogy of the crystal Froebel avails himself freely. We need cite only the following,[3] recognising, as in the writings of Comenius, the treacherous nature of all arguments based on analogy: "In the entire process of the development of the crystal, as it is found in natural objects, there is a highly remarkable agreement with the development of the human mind and of the human heart. Man, too, in his external manifestation—like the crystal—bearing within himself the living unity, shows at first more one-sidedness, individuality, and incompleteness, and only at a later period rises to all-sidedness, harmony, and completeness."

The second geometrical form included in Froebel's gifts, the cube, is in shape a crystal, and is derived by him in the following fashion: "Every crystalline force that manifests itself in and through formative and externalising process proceeds from a centre, simultaneously tending in opposite directions. By its very nature, therefore, it imposes limits upon itself, is all-sided, radiating, rectilinear, and hence necessarily spherical in its operation. Now, such a force, operating without hindrance, will necessarily act bilaterally in any one direction; and in the totality of all directions there will always be, starting in any direction, from the centre, sets of three such bilateral directions perpendicular to one another, in the fullest equilibrium of independence and interdependence . . . The result of the predominance of these three bilateral, perpendicular directions, which equally control and determine all other directions, must be a crystal limited by straight lines and planes, revealing in every part the inner nature and action of the force; it can only be a cube, a regular hexahedron."[1]

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[1] § 69. Cf. *Aphorism* written in 1821, quoted in note to English translation, p. 169. "The spherical is the symbol of diversity in unity and of unity in diversity . . . It is infinite development, and absolute limitation, etc."

[2] § 70.

[3] § 21.

To derive the third constituent of his second play-gift, Froebel abandons the system of crystallography, and falls back on his principle of the unity of opposites; regarding the sphere and the cube as opposites, he assumes that they are united in the cylinder.

Not only does Froebel in his gifts and games personify playthings and assume that children will be able to appreciate the symbolism involved,[2] but he believes that the quasi-philosophic conceptions which underlie the gifts and games will impress themselves on the child's mind and determine his attitude to life. So obsessed is Froebel with his philosophical formulae that his psychological insight cannot save him from such absurdities as assuming that the child when dealing with the second gift, that is, during the second half of the first year of his life, has some dim perception of the nature and destiny of man.[1] In his account of the same play he affirms:[2] man himself "in play, even as a child, by play should perceive within and without how from unity proceed manifoldness, plurality, and totality, and how plurality and manifoldness finally are found again in and resolve themselves into unity and should find this out in life." In reviewing the first plays he observes:[3] "In and by means of the ball (as an object resting in itself, easily movable, especially elastic, bright, and warm) the child perceives his life, his power, his activity, and that of his senses, at the first stage of his consciousness, in their unity, and thus exercises them . . . The ball is therefore to the child a representative or a means of perception of a single effect caused by a single power. The sphere is to the child the representative of every isolated simple unity; the child gets a hint in the sphere of the manifoldness as still abiding in unity. The cube is to the child the representative of each continually developing manifold body. The child has an intimation in it of the unity which lies at the foundation of all manifoldness, and from which the latter proceeds. In sphere and cube, considered in comparison with each other, is presented in outward view to the child the resemblance between opposites which is so important for his whole future life, and which he perceives everywhere around himself, and multifariously within himself."

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[1] *Education of Man*, § 72.

[2] For criticism of Froebel's use of symbolism see W. H. Kilpatrick, *Froebel's Kindergarten Principles critically examined.*

While we marvel at the credulity of his disciples who accept these statements, we must nevertheless recognise that it is the glamour of the philosophy underlying the devices and of the esoteric jargon in which the methods are formulated that have contributed largely to the popularity and persistence of Froebel's system. Modern theosophy and many other quasi-philosophical systems derive much of their support from the same causes. Of Froebel it might be said that whereas his judgments may in many cases be right, his reasons for them are almost without exception wrong; his standpoint is the metaphysical, not the psychological, on which alone the selection and arrangement of children's games can be properly based.

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[1] *Pedagogics of Kindergarten*, English trans., p. 92.

[2] *Ibid.*, p. 98.

[3] *Ibid.*, p. 105.

We have throughout attempted to do justice to Froebel's philosophical conceptions and to refer them to their sources, but it must be recognised that they have no inner connection or coherence, that their application is arbitrary, and that with a sufficiently large selection of principles and unrestricted freedom in their application any order amongst his practical devices could readily be justified. The principles are sometimes inconsistent one with the other; for example, "the law of opposites" and "education by development," since development, if taken in the modern evolutionary sense, proceeds by gradual differentiation, and modification of structure, and not by alternation between one extreme and one other. From the philosophical standpoint the chief error of Froebel is, however, the assumption that knowledge or experience can be attained by mere evolution from within, by making the inner outer, as he repeatedly urges. This is the principle which in philosophy rationalism adopted, and thereby failed to account for experience. Internal development is stimulated by the external and modified by it; and the process of making the internal external and the external internal are not, as assumed by Froebel, successive but contemporaneous. In an address delivered in the presence of the Queen of Saxony at Dresden in 1839 Froebel made a statement [1] which might be taken to imply the latter view; but elsewhere in his writings making the inner outer and the outer inner are regarded as successive stages of development.

Notwithstanding his philosophical deficiencies and his questionable educational procedure, it must nevertheless be admitted that to Froebel is due the credit of directing attention to the training of children under school age and of founding a new type of educational institution. While the formalism of the Kindergarten methods invites criticism, it was the methodical arrangement of the plays and occupations [2] which enabled the system to be generally adopted, and allowed many who had not the spirit of the master to introduce play into schools. Just as to the Jesuits and Comenius Education owes the beginnings of a systematic methodology of instruction, so to Froebel it is indebted for a methodology of play.

[1] *Education by Development*, p. 246: "But all activity is threefold, or expresses itself in threefold action—in development, reception, and the unity of both, viz., comparison and formation. This threefold activity appears in all which surrounds the child, as, for example, in every plant as well as in the life of the child himself. Thus the life of the child also must be comprehended in this triplicity of its creative activity, and must be treated accordingly to it."

[2] Cf. *Pedagogics of the Kindergarten*, pp. 233-4: "A want of classification is the bane of all combination plays for children which have till now been known to me, and the said plays lose by this their formative influence for spirit and mind, as well as their applicability for life."

CHAPTER XII.

MONTESSORI

THE Montessori method of education originated from the application to normal children of a procedure devised for the training of defectives, and it was only made possible by a social experiment in housing conditions. This indicates how complex the education problem has become in modern days, and how far we are removed from the time when the educator's sole concern was the training of the statesman or the making of a scholar and a gentleman.

To remove the social evils of the poorest quarters of Rome, the Association of Good Building was formed, its plan being to acquire tenements, remodel them, put them into a productive condition and administer them in the interests of the occupier.[1] The care of the reconstructed tenements was given to the tenants, and they did not abuse their trust. Difficulties nevertheless arose in regard to young children under school age. Left to themselves during the day, and unable to appreciate the motives which led their parents to respect the property, such children spent their time defacing the buildings. To cure this evil it occurred to the Director General of the Roman Association for Good Building "to gather together in a large room all the little ones between the ages of three and seven belonging to the families living in the tenement. The play and the work of these children were to be carried on under the guidance of a teacher who should have her own apartment in the tenement house."[1] Thus came to be instituted the House of Childhood—the school within the tenement. The expenses of the new institution were met in accordance with the general self-supporting principle of the reconstruction scheme by the sum that the Association would have otherwise been forced to expend upon re-decoration and repairs.

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[1] *The Montessori Method*, English trans., p. 56. All references unless when otherwise stated, are to this work.

The aim of the House of Childhood, according to the Rules and Regulations of the Children's Houses, is to offer, free of charge, to the children of those parents who are obliged to absent themselves from home for their daily occupation, the personal care which their parents are not able to give. All the children in the tenement between the ages mentioned are eligible for admission. No payment is demanded, but in addition to sending the children to the House of Childhood at the appointed time clean in body and clothing, the parents must undertake to show respect and deference to the Directress, and to co-operate in the education of the children. Those children who attend unwashed or with soiled clothing, who prove themselves to be incorrigible, or whose parents fail to respect the authorities or otherwise obstruct the educative work of the institution, may be expelled.

It was thus a social need that brought about the institution of a new educational agency, and it would be a misfortune if in the expatriation of the system the cause of its initiation was ignored, and if a scheme originated for the children of the poor should become reserved for the children of the rich.

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[1] p. 43.

Towards the end of 1906[1] the Director General of the Roman Association of Good Building entrusted to Dr. Maria Montessori the organisation of the infant schools in the model tenements in Rome. The method adopted by her was determined by her training and previous experience. Dr. Montessori having graduated in Medicine, was for a time in charge of the training of mentally defective children. Her success with these was remarkable. She taught a number of such children to read and write so efficiently that they were able to be presented for examination with normal children of the same age, and this phenomenal result she attributed to the fact that her pupils had been taught by an improved method. She therefore conjectured that if the methods employed with defective children were applied in the training of normal children, they would yield even more surprising results.

To be successful these methods should obviously be applied with children at a corresponding stage of development to that of the deficients, that is, they should be employed in the training of infants; at this period of life the child has not acquired the co-ordination of muscular movements necessary to enable him to perform dexterously the ordinary acts of life, his sensory organs are not fully developed, his emotional life is still unstable and his volitional powers irresolute. The significance of the pedagogical experiment for which the institution of the House of Childhood afforded the facilities lies in this, Dr. Montessori explains:[2] "It represents the results of a series of trials made in the education of young children, with methods already used with deficients."

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[1] The first House of Childhood was opened on the sixth of January, 1907.

[2] p. 45.

Such an application to normal children of the methods found successful with deficients was contemplated by the earliest workers engaged in the education of the feeble-minded. Thus, at the laying of the foundation stone of the first American schools for defectives in 1854, the Rev. Samuel J. May, basing his argument on the theological or metaphysical doctrine that evil is never an end in itself but always a means to some higher good, ventured to declare with an emphasis somewhat enhanced, he admits, by a lurking distrust of the prediction, that the time would come when access would be found to the idiotic brain, the light of intelligence admitted into its dark chambers, and the whole race be benefited by some new discovery on the nature of mind.[1] Séguin in his treatise on Idiocy published in 1846 had thus anticipated:[2] "If it were possible that in endeavouring to solve the simple question of the education of idiots we had found terms precise enough that it were only necessary to generalise them to obtain a formula applicable to universal education, then, not only would we in our humble sphere have rendered some little service, but we would besides have prepared the elements for a method of physiological education for mankind. Nothing would remain but to write it." The neglect by educationists of the methods successfully used in training certain well-known physical defectives, for example, Laura Bridgmann and Helen Keller, is undoubtedly culpable; had similar "natural experiments" presented themselves in other spheres, they would have been fully exploited.

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[1] E. Séguin, *Idiocy: and its Treatment by the Physiological Method* (Columbia Univ. Teachers Coll. Educl. Reprints), pp. 10-11.

[2] *Ibid.*, p. 24.

Before proceeding to elaborate the principles underlying the new method we should perhaps recall the fact that the child under school age usually acquires unaided an education which, if somewhat unsystematic in character, is nevertheless not inconsiderable in amount. When such early education has been consciously controlled and systematically directed, the results, as in the case of Karl Witte, appear miraculous.[1]

By discovering the main characteristics of the training of defective children we shall have the key to the new Montessori method. The first principle is to train the pupil to be independent of others in respect to the ordinary practices of life; it appears also to necessitate approach to the child mind at a lower level than can be adopted with normal children, an appeal to the senses rather than to the intellect. With physically defective children it implies training one sense to function vicariously for another; for example with deaf children, teaching words not by hearing the sounds but by feeling the vibrations of the larynx of the speaker. The ultimate reference is to the sense of touch, which is regarded as fundamental and primordial. The Montessori system accordingly becomes an "education by touch." [2] Dr. Montessori maintains that the sense of touch is fundamental, that it undergoes great development during the early years of life, and that if neglected at this age it loses its susceptibility to training.

Séguin, of whom Dr. Montessori claims to be a disciple, had designated his treatment of the feeble-minded as the physiological method. Recognising the advance which

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[1] *The Education of Karl Witte,* trans. by Leo Wiener.

[2] Cf. titles of Compayré's series of monographs: *Montaigne and Education of the Judgment, Herbart and Education by Instruction.*

Dr. Montessori has made, and her adaptation to the training of normal children of a procedure specially devised for deficient children, we may characterise her method as the psychological method. Pestalozzi had sought to psychologise education but, as in his day there existed no psychology of the school child, he ended by mechanising instruction, and the methods which with him yielded astonishing results are the despair of the present-day teacher.

The psychological method in education implies that the educative process is dependent on the stage of mental development of the child, even on his interests, not on the necessities of a curriculum or on the teacher's scheme of work. "By education," says Montessori,[1] "must be understood the active help given to the normal expansion of the life of the child." The "psychological moment" in the educative process comes when consciousness of a need arises in the child mind. "It is necessary then," in the Montessori method, "to offer those exercises which correspond to the need of development felt by an organism, and if the child's age has carried him past a certain need it is never possible to obtain, in its fulness, a development which missed its proper moment;"[2] and, if a child fails to perform a task or to appreciate the truth of a principle, the teacher must not make him conscious of his error by repeating the lesson; she must assume that the task has been presented prematurely, and, before again presenting the stimulus, await the manifestation of the symptoms which indicate that the need exists. The duration of a process is determined not by the exigencies of an authorised time-table, but by the interval which the child finds requisite to exhaust his interest. Thus in a Montessori school we may find a pupil working unremittingly at a self-imposed task for several days on end.[1]

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[1] p. 104. [2] p. 358.

A further consequence of the adoption of the psychological standpoint is that there are in the Montessori system no prizes. The pupil's sense of mastery is his highest reward: "His own self-development is his true and almost his only pleasure."[2] Such correction as is admitted in the Montessori system comes from the material, not from the teacher. "From the 'Children's Houses' the old-time teacher who wore herself out maintaining discipline of immobility and wasting her breath in loud and continual discourse, has disappeared, and the didactic material which contains within itself the control of errors is substituted, making auto-education possible to each child."[3] This is the principle of Rousseau[4] and of Spencer,[5] not however as by them confined to moral misdemeanours, that the child should meet with no obstacles other than physical. It is an intellectual "discipline by consequences."

The psychological method also implies the perfect freedom of the child, the freedom which consists in absolute obedience to the laws of the development of his own nature. "The method of observation (that is, the psychological method) is established upon one fundamental base—the liberty of the pupils in their spontaneous manifestations."[6] This liberty necessitates independence of action on the part of the child; "Whoever visits a well kept school is struck by the discipline of the children. There are forty little beings from three to seven years old, each one intent on his own work; one is going through one of the exercises for the senses, one is doing an arithmetical exercise, one is handling the letters, one is drawing, one is fastening and unfastening the pieces of cloth on one of the wooden frames, still another is dusting. Some are seated at the tables, some on rugs on the floor." [1] To many this scene would suggest licence, not liberty; but it is their methods that lay upon educationists the necessity to rediscover from time to time the principle of liberty. The Montessori doctrine of liberty is just such a re-discovery; needless to say Dr. Montessori was not the first to make liberty an ideal in Education.

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[1] Tozier, *An Educational Wonder Worker*, p. 10.

[2] p. 356. [3] p. 371. [4] Cf. above, p. 152.

[5] *Education*, ch. iii. [6] p. 80.

Passing from a consideration of the principles to the practices of the Method we find that they fall into three classes: (1) the exercises of practical life; (2) the exercises in sensory training; and (3) the didactic exercises.

The main task in the training of feeble-minded children is to teach them to take care of themselves. This is likewise the first phase in the training given in the House of Childhood. It is a training in liberty; for freedom, according to Dr. Montessori, does not consist in having others at one's command to perform the ordinary services, but in being able to do these for oneself, in being independent of others. Thus in the Houses of Childhood the pupils learn how to wash their hands, using little wash-stands with small pitchers and basins, how to clean their nails, brush their teeth, and so on. Exercises are also arranged to train the child in the movements necessary in dressing and undressing. The apparatus for these exercises consists of wooden frames, mounted with two pieces of cloth or leather, which are fastened by means of buttons and buttonholes, hooks and eyes, eyelets and lacings, or automatic fasteners. After some practice in fastening and unloosening the pieces of cloth with the various types of fasteners, the child finds that he has acquired a dexterity which enables him to dress and undress himself; and, not content with the satisfaction derived from such independence, his consciousness of the possession of a new power excites in him a desire to assist in dressing the whole family.[1] All the furniture in the House of Childhood, tables, chairs, etc.—for there are no fixed desks—are of such a size and construction that the pupils can handle them easily; they learn to move them deftly and without noise, and are thus afforded a training in motor adjustment.

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[1] p. 346.

Dr. Montessori has also devised certain formal gymnastic exercises to develop in the child co-ordinated movements. She disapproves of the child practising the ordinary gymnastic exercises arranged for the adult. "We are wrong," she maintains,[2] "if we consider little children from their physical point of view as little men. They have, instead, characteristics and proportions that are entirely special to their age." A new set of exercises must consequently be evolved, and, in accordance with the general Montessori principles, this has been accomplished by observing the spontaneous movements of the child. One piece of apparatus, namely, the little round stair, may be instanced.[3] A wooden spiral stairway enclosed on one side by a balustrade on which the children can rest their hands, the other side being left open, enables the children to habituate themselves to ascending and descending stairs without holding on, and teaches them to move up and down with movements that are poised and self-controlled. The steps are very low and shallow, and the children can thereby learn movements which they cannot execute properly in climbing ordinary stairways in their homes, in which the proportions are suited to adults. The general result of the new exercises is to give the pupils of the House of Childhood a gracefulness of carriage which distinguishes them from other children.

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[1] Tozier, p. 10. [2] pp. 139-140. [3] Cf. p. 143.

For the methods and the apparatus of her scheme of sensory training Dr. Montessori is largely indebted to the tests and instruments employed by the experimental psychologist. The standpoints of Experimental Psychology and of sensory training are nevertheless different. Experimental Psychology seeks to determine by a process of measurement the actual condition of the sensory powers; it does not attempt to improve the powers, whereas Dr. Montessori is not interested in measuring the powers but in furthering their development. In the application of tests by psychologists, especially when the investigation extends over a long period, practice-effects frequently disclose themselves. These practice-effects are to the psychologist disturbing factors which he must estimate and eliminate, but it is just these practice-effects that sensory education strives to secure.

The psychological methods of determining sensory acuity and sensory discrimination had been applied by Dr. Montessori in training the feeble-minded. In applying them to normal children she found that they required modification. With deficient children the exercises had to be confined to those in which the stimuli were strongly contrasted; normal children can, however, proceed to finely graded series. Normal children manifest great pleasure in repeating exercises which they have successfully accomplished; deficient children when they succeed once are satisfied, and show no inclination to repeat the task. The deficient child when he makes mistakes has to be corrected; the normal child prefers to correct his own mistakes. The differences are summed up by Dr. Montessori in the statement that the didactic material which, used with deficients, makes education possible, used with normal children, provokes auto-education.[1]

In sensory training Montessori, like Rousseau, believes in isolating the senses whenever that is possible. This procedure, it will readily be inferred, is suggested by the education of physically deficient children. Blind people, it is popularly assumed, acquire a very fine discriminative ability in the sphere of touch. We are not surprised then to find that in the training of their tactual sense, the pupils of the Montessori schools are blindfolded, a feature of the training which seems to add zest to their efforts. The auditory exercises are given in an environment not only of silence, but even of darkness.

The material used in the sensory training recalls the apparatus of the psychological laboratory. For perception of size, series of wooden cylinders varying in height only, in diameter only, or in both dimensions at once, are employed, likewise blocks varying regularly in size, and rods of regularly graded lengths; for perception of form, geometrical insets in metal, in wood or the shapes of the insets drawn on paper; for discrimination in weight, tablets of wood similar in size but differing in weight; for touch, a highly polished surface and a sand-paper surface; for sense of temperature, small metal bowls with caps; for auditory acuity, cylindrical sound boxes containing different substances; for the colour sense, graded series of coloured wools.

The procedure adopted may be illustrated from the method followed in the training in colour discrimination. Montessori accepts from Séguin the division of the lesson into three periods or steps: (1) the association of the sensory precept with the name. For example, the child is shown two colours, red and blue. When the red is presented, the teacher says simply, "This is red"; when the blue, "This is blue." (2) The second period or step involves recognition of the object when the name is given. Thus the teacher says to the child, "Give me the red," "Give me the blue." (3) The third step involves recalling the name corresponding with the object. Thus the child is asked, the object being shown, "What is this?" and he responds, "Red" or "Blue." Recall, as ordinary experience abundantly exemplifies, is more difficult than recognition.

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[1] p. 169.

This procedure follows the methods employed and discussed by Preyer and Baldwin for testing the colour vision of children;[1] but, as indicated above, instead of using the methods for testing, Montessori employs them for training the sensory activities of her pupils.

Similar methods are adopted in developing in the child tactual acuity, and in training him to discriminate differences in temperature and in weight. In these exercises the child is blindfolded or is enjoined to keep his eyes closed during the tests; he is encouraged to do so by being told that he will thus be able to feel the differences better.

To the three periods or steps in a lesson recommended by Séguin, Montessori has in certain sensory modalities added a preparatory series of exercises which represents the real sense education or auto-education, and by which the pupil acquires an extraordinary ability in differentiating finely graded stimuli. For the colour sense these exercises require the sorting and grading of sixty-four cards of various coloured wools, and are preparatory to the naming step or period in the lessons on sense training.

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[1] Cf. the writer's *Introduction to Experimental Education*, ch. iv.

The exercises which are directed to the development of form play such an important part in the Montessori system as to entitle them to separate treatment. The first exercise is to sort out of a heap bricks and cubes such as are employed by Froebel. Young children come to recognise the forms of these merely by grasping them; they do not require to trace the contour. This exercise may be varied by the use of different materials, as for example, by the use of coins, and so expert do the children become that they can distinguish between small forms which differ but little from one another, such as corn, wheat, and rice.[1]

The real training in the perception of form begins, however, when the child passes to the exercises of placing wooden shapes in spaces made to receive them, or in superimposing such shapes on outlines of similar form.

Geometric insets of various designs, the initial ones strongly contrasted, the later ones merely dissimilar forms of the same figure, as for example the triangle, are mixed up and have to be sorted out by the children and fitted into the frames made to receive them. The frames furnish the control necessary to test the accuracy of the work. Ordinary solids, for example, cubes, spheres, prisms, are not employed as is usually the case in the teaching of form, but, instead, insets representing solid objects with one of the dimensions greatly reduced and with the two dimensions determining the form of the plane surface made most evident; they differ in this respect from the Froebelian gifts, the reason being that the choice of material in the Montessori method is determined purely from the pedagogical standpoint, and that the objects most commonly met with in practical life, table tops, doors, window frames, etc., are of this form.

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[1] p. 190.

In learning to fit the geometric insets into the spaces provided for them the child employs not only the visual sense but also the tactual and muscular senses; he is taught to run the index finger of the right hand round the contour of the form and to repeat this with the contour of the frame into which the inset fits. It is frequently observed that children who cannot recognise a shape by looking at it do so by touching it. The association of the muscular-tactile sense with that of vision, Montessori maintains,[1] "aids in a most remarkable way the perception of the forms and fixes them in memory."

From the exercises with the solid insets in which the control is absolute, the child passes to exercises in the purely visual perception of form. The wooden insets have to be superimposed on figures cut out of blue paper and mounted on cards. In a further series of exercises the figures are represented by an outline of blue paper, which for the child represents the path which he has so often followed with his finger. Finally, he is required to superimpose the wooden pieces on figures whose outlines are represented merely by a line. He thus passes from the concrete to the abstract, from solid objects to plane figures represented merely by lines and perceived only visually.

Through such exercises the forms of the various figures, circles, ellipses, triangles, rectangles, etc., come to be known, and when the need for them becomes urgent the names of the figures are given. As no analysis of the forms is undertaken, no mention made of sides and angles, it may legitimately be contended that the teaching of geometry is not being attempted.[2]

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[1] p. 199. This is a pedagogical application of Berkeley's Theory of Vision.

[2] p. 236. For the teaching of geometry see *The Montessori Method*, p. 243.

The methods adopted in training the perception of form, involving as they do the extensive employment of tactual and motor imagery, prepare the way for the teaching of writing and of the other didactic processes. Before considering the didactic exercises it may be opportune to estimate the value of sensory training in the education of the child. Montessori maintains that if we multiply the sensations and develop the capacity of appreciating fine differences in stimuli we refine the sensibility and multiply man's pleasures.[1] Such a claim would be difficult to substantiate. To the practical exercises in the Montessori system no objection can be taken, for in addition to affording sensory training they are of direct value in enabling the child to meet the social situations which arise in everyday life. Nor can objection be urged against such exercises in sensory training as subserve the didactic processes of writing, etc. ; but one may be allowed to question the value of a specific training of the sensory powers for their own sake, and it is just this aspect that Montessori emphasises. While lack of certain forms of sensory training may prejudicially affect an individual's advancement in specific occupations and professions, high intellectual attainments may be compatible with serious sensory deficiency, as the well-known case of Helen Keller illustrates. It is also doubtful whether the results of a sensory training in a specific sphere can be transferred even to other sensory spheres ; the assumption that they do transfer involves the doctrine of formal training or transfer of training which is still in dispute. It has likewise to be added that the development of certain senses might not be socially advantageous ; and in this connection we need only instance the sense of smell which Montessori significantly ignores.

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[1] p. 221.

The insistence on the independent value of sensory training is an example of the general tendency in Education to lose sight of the social significance of the whole process and to allow the means to acquire interest for their own sake.

It is by the success attending the application of the didactic processes of writing, reading, etc., that popular interest has been aroused in the Montessori method; but at the inception of the system it was not intended that such exercises should be included, and the results were incidental.

In the Montessori system the teaching of writing precedes the teaching of reading. Montessori maintains[1] that in normal children the muscular sense is most easily developed in infancy, and this makes the acquisition of writing exceedingly easy for children. It is not so with reading, which requires a much longer course of instruction and which calls for a superior grade of intellectual development, since it treats of the interpretation of signs, and of the modulation of the voice in the accentuation of syllables, in order that the word may be understood. The former is a purely mental task; whereas in writing to dictation the child translates sounds into material signs and performs certain movements, the latter process being easy and usually affording pleasure to the child.

To her predecessors Montessori owes little in regard to the teaching of writing except by way of warning. The apparatus used by Séguin with deficient children was found inconvenient, and of his method Montessori remarks: "We have Séguin teaching geometry in order to teach a child to write."[2]

In accordance with her general principle Montessori adopts in respect to writing what we have termed the psychological standpoint. "Let us observe an individual who is writing and let us seek to analyse the acts he performs," she proposes; and again: "It goes without saying that we should examine the individual who writes, not the writing; the subject, not the object."

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[1] pp. 226-7. [2] p. 256.

The procedure followed in the teaching of writing emerged from the experience of teaching a feeble-minded girl to sew. Dr. Montessori discovered that weaving Kindergarten mats enabled this girl to acquire such control over the movements of the hand that she could execute sewing which she had previously been unable to perform. The general principle which she deduced from this was that "preparatory movements could be carried on, and reduced to a mechanism, by means of repeated exercises not in the work itself, but in that which prepares for it. Pupils could then come to the real work, able to perform it without ever having directly set their hands to it before." [1]

Writing, according to the Montessori view, is not a mere copying of head lines, but significant writing, the writing of words which express ideas. In writing are involved two diverse types of movement, the movement by which the forms of letters are reproduced and that by which the instrument of writing is manipulated; in addition to these movements there is also necessary for the writing of words to dictation the phonetic analysis of spoken words into their elementary sounds. Preparatory exercises for each of these factors must, in accordance with the general principle enunciated above, be devised and practised independently before writing is actually commenced.

As the children had already learned to know the forms of the geometric insets by running their fingers round the contours, so, to teach the forms of the letters, it occurred to Montessori to get the pupils to trace with the finger the shapes of the letters cut out in sand-paper and pasted on cards, the roughness of the sand-paper providing a control for the accuracy of the movements. The children, indeed, as soon as they have acquired facility in this tracing of the forms of the letters, take great pleasure in repeating the movement with closed eyes. It has also been noticed that the children can sometimes recognise letters by touching them, when they cannot do so by looking at them.[1] Thus the forms of the letter are learned and impressed on the minds of the pupils not by mere visual analysis and visual imagery, but by tactual and motor experiences and grapho-motor imagery.

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[1] p. 261.

The phonetic sounds of the letters are taught at the same time as the tracing of the forms, the steps in the lesson following the three-period arrangement already illustrated. The audito-motor imagery helps to reinforce the grapho-motor and to facilitate the retention of the forms of the letters. The children are also practised in analysing the spoken word into its sounds and in reconstructing the word with sand-paper letters. The way is thus prepared for reading.

The control of the pen is also attacked indirectly. Recourse is had for this training to the geometric insets, of which frequent mention has already been made. Taking one of the metal frames into which the inset fits, the child draws on a sheet of paper with a coloured crayon around the contour of the empty frame. Within the figure which results he places the metal inset, and with a crayon of a different colour traces the outline of the inset. Thus are reproduced in different colours upon the paper the two figures. With another crayon of his own selection, held as the pen is held in writing, the pupil fills in the figures which he has outlined. In making the upward and downward strokes he is taught not to pass outside the contour.

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[1] p. 277.

Variety is lent to the task by the choice of different coloured crayons and by the use of different insets, the employment of the latter also training him to make upward and downward strokes of various lengths. Gradually the lines tend less and less to go outside the enclosing boundary until at last they are perfectly contained within it, and both the centre and the frame are filled in with close and uniform strokes. The child is now master of the writing instrument; the muscular mechanism necessary to its manipulation is established.

The moment arrives when the partial processes are perfected, when the three prerequisites to writing are at the pupil's command; that is, when he has acquired control of the writing instrument, when he can reproduce the forms of the letters moving his fingers in the air, and when the composition of words out of the isolated sounds of letters can be effected psychically. At this point the imitative tendency in the child arouses in him the impulse to write, and a pupil who has given no previous indication of having developed ability in this direction begins straightway to write. The spontaneous emergence of this writing activity is recorded by the directress much after the fashion that the appearance of the first snowdrop or primrose would be recorded by a naturalist. The children, not perceiving the connection between the preparation and the combined achievement, are possessed by the delusion that having now grown to the proper size, they know how to write.[1]

In her first efforts Montessori brought several of her pupils at the same time to the completion of the preparatory training; thereupon what might be termed a pedagogical Pentecost possessed the school. The scene is thus described by Montessori:[2]

"One beautiful December day when the sun shone and the air was like spring, I went up to the roof with the children. They were playing freely about, and a number of them were gathered about me. I was sitting near a chimney, and said to a little five year old boy who sat beside me, 'Draw me a picture of this chimney,' giving him as I spoke a piece of chalk. He got down obediently and made a rough sketch of the chimney on the tiles which formed the floor of this roof terrace. As is my custom, with little children, I encouraged him, praising his work. The child looked at me, smiled, remained for a moment as if on the point of bursting into some joyous act and then cried out, 'I can write! I can write!' and kneeling down again he wrote on the pavement the word 'hand.' Then full of enthusiasm he wrote also 'chimney,' 'roof.' As he wrote he continued to cry out, 'I can write! I know how to write!' His cries of joy brought the other children, who formed a circle about him, looking down at his work in stupefied amazement. Two or three of them said to me, trembling with excitement, 'Give me the chalk. I can write too.' And indeed they began to write various words: mama, hand, John, chimney, Ada . . .

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[1] p. 288.

[2] pp. 287-8, 289.

"After the first word, the children, with a species of frenzied joy, continued to write everywhere . . . In these first days we walked upon a carpet of written signs. Daily accounts showed us that the same thing was going on at home, and some of the mothers, in order to save their pavements, and even the crusts of their loaves upon which they found words written, made their children presents of paper and pencil. One of these children brought to me one day a little note-book entirely filled with writing, and the mother told me that the child had written all day long and all evening, and had gone to sleep in his bed with the paper and pencil in his hand."

Montessori reports[1] that the average time that elapses between the first trial of the preparatory exercises and the first written word is, for children of four years, from a month to a month and a half. With children of five years the period is much shorter, being about a month. The pupils are generally expert after three months.

The way to the teaching of reading is prepared in the Montessori system by the procedure adopted in the teaching of writing. In the exercises preparatory to writing is included word-building with sand-paper script characters representing the sounds of the spoken word. Reading demands the inverse process, that is, the reproduction of the sounds from the symbols and the fusion of these sounds into words. There is also necessary for the correct enunciation of the word the proper accentuation of the syllables, and this comes only with recognition of the meaning. Montessori consequently refuses to give the name 'reading' to anything less than this. Just as, in her system, writing is something more than mere copying pot-hooks and head-lines, so reading is not a mere 'barking at print' but the recognition of the meanings represented by the visual characters. "What I understand by reading," she says, "is the interpretation of an idea from the written signs;" and again: "Until the child reads a transmission of ideas from the written words he does not read."[2]

The didactic material for the lessons in reading consists of slips of paper or of cards upon which are written in clear large script, words and phrases.

The lessons begin with the reading of names of objects which are known or which are present. There is no question of restricting the selection of words to those that are easy, for the child already knows how to read the sounds which

[1] p. 294. [2] p. 296.

compose any word. The procedure is as follows: The child is given a card on which a name is written in script. He translates the writing slowly into sounds, and if the interpretation is exact the teacher limits himself to saying "Faster." The child reads more quickly the second time, but still often without understanding. The teacher repeats, "Faster, faster." The child reads "faster" each time, repeating the same accumulation of sounds; finally the word emerges in consciousness. When the child has pronounced the word, he places the card under the object whose name it bears, and the exercise is finished. It is a lesson which proceeds very rapidly since it is only presented to a child who is already prepared through writing.[1]

Sentences describing actions or expressing commands are likewise written on slips of paper, and the children select these and carry out the requests contained in them. It is to be noted that the child does not read the sentences aloud.[2] The aim of reading is to teach the child to discover ideas in symbols, hence the reading should be silent and not vocal. "Reading aloud," according to the Montessori analysis, "implies the exercise of two mechanical forms of language—articulate and graphic—and is a complex task. The child, therefore, who begins to read by interpreting thought should read mentally." "Truly," claims Montessori,[3] "we have buried the tedious and stupid A B C primer side by side with the useless copybooks!"

The success of this method of teaching reading may be judged from the following incident related by Montessori,[4] which also indicates that the system is in its application in Italy not confined to the children of the poor. "A four-year-old boy, educated in a private house, surprised us in the following way. The child's father was a Deputy, and received many letters. He knew that his son had for two months been taught by means of exercises apt to facilitate the learning of reading and writing, but he had paid slight attention to it, and, indeed, put little faith in the method. One day, as he sat reading, with the boy playing near, a servant entered, and placed upon the table a large number of letters that had just arrived. The little boy turned his attention to these, and holding up each letter read aloud the address. To his father this seemed a veritable miracle."

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[1] The child passes from the reading of script to the reading of print without guidance (*The Montessori Method,* p. 301), a point which has been noted by other experimenters in the teaching of reading.

[2] p. 301. [3] p. 298. [4] pp. 301-2.

As to the average time required for learning to read, it appears that the period intervening between the commencement of the writing process and the appearance of the ability to read is about a fortnight. Facility in reading is, however, arrived at much more slowly than in writing. Normal children trained according to the Montessori method begin to write at four years of age, and at five know how to read.

The Italians start these processes with an undoubted advantage as their language is practically phonetic. The irregular system of representation of the English language must handicap teachers who seek to apply the method in English-speaking countries; nevertheless "individual English children who have been taught by the Montessori system have learned to read and write as rapidly as the Italian children in the Montessori schools."[1] Miss Tozier tells of a little boy, aged only three and a half years, who, without realising that he had done anything more than play, could read and write both in English and in Italian.[2]

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[1] Holmes, *The Montessori System of Education*, p. 16.

[2] Tozier, *An Educational Wonder Worker*, p. 13.

Montessori's treatment of the teaching of number does not display the same originality as her method of teaching writing and reading. This is, however, not surprising, for psychologists are still undecided as to whether the conception of number in the child's mind originates in counting, or whether the idea can arise from the simultaneous presentation of a multiplicity of objects.

The device of which greatest use is made in the teaching of number in the Montessori system is the "long stair," a set of ten rods, the first being one metre in length, the last one decimetre, the intermediate rods diminishing in length by decimetres. The rods are divided into decimetre parts, the spaces on the rods being painted alternately red and blue. When arranged in order they form what is called the "long stair." They are utilised in the sensory exercises for training the children in discrimination of length. In these exercises the rods are mixed up, and the teacher grades them in order of length, calling the child's attention to the fact that the stair thus constructed is uniform in colour at one end. The child is then permitted to build it for himself.

After the child has had practice in arranging the rods in order of length he is required to count the red and the blue divisions, beginning with the shortest rod, thus: one; one, two; one, two, three; always going back to one in the counting of each rod and starting from the same end. He is then required to name the various rods from the shortest to the longest, according to the total number of divisions each contains, at the same time touching the rods on the side on which "the stair" ascends. The rods may then be called "piece number one," "piece number two," and so on, and finally they may be spoken of in the lessons as one, two, three.

The graphic signs for the numbers are cut in sand-paper, and by the three-period lesson arrangement previously illustrated the pupil is taught to associate the names of the numbers with their graphic forms. The graphic signs are then related to the quantity represented.

Addition may then be attacked, and is taught by suggesting to the child to put the shorter rods together in such a way as to form tens; 1 is added to 9, 2 to 8, and so on. Subtraction, multiplication, and division can also be introduced by means of the same didactic material, and later on the child is allowed to express graphically his operations with the rods.

As the Montessori system is still in process of evolution it would be unwise to pass hasty criticisms on its incompleteness in certain respects. Since the first formulation of the method, clay-modelling and dancing have been added, and the founder has marked out religious instruction as a subject awaiting investigation and reform according to the principles of a scientific pedagogy. The system has been much criticised for its neglect of literary training and the training of the imagination. Unfortunately the critics identify these two imputed defects. In defence of Montessori, or in explanation, it may be said that she accepts the recapitulation principle in education: "The child follows the natural way of development of the human race. In short, such education makes the evolution of the individual harmonise with that of humanity."[1] To one who accepts this doctrine it would be open to contend that just as in the early development of mankind practical activities must have figured more largely than the literary, so the early education of the child should be more practical than humanistic. The origin of the method may to some extent also account for this neglect. The conditions under which he worked led Pestalozzi to affirm that "the poor ought to be educated for poverty"; doubtless the class of pupils for whom the House of Childhood was instituted was such that literature would not appeal to them, but with an extension of the scope of the system there may go in the future an extension of the curriculum.

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[1] p. 160.

While Montessori is probably in error in regarding imagination as a substitute for the real and not an independent line of activity related to the real as play is to work, those who would employ fairy tales to train the imagination are in deeper error; for not only does their position imply the faculty psychology and the doctrine of formal discipline, but the training which they desiderate is of the free or uncontrolled imagination, whereas the imagination that is of value is of the controlled and constructive type; the former requires to be disciplined. The proper defence of fairy tales is that they form part of the literary heritage of a people and as such ought to be known; and it may be that the early years of childhood, when the contradictions between the happenings of a fairy realm and those of a causally conceived world do not press heavily, may be the most suitable time for learning them.

The Montessori method necessitates the employment of teachers who are possessed of an extensive knowledge of child-psychology and who have acquired the technique of laboratory procedure, more especially in its application to young children. On this Montessori repeatedly insists: "The broader the teacher's scientific culture and practice in experimental psychology, the sooner will come for her the marvel of unfolding life, and her interest in it."[1] "The more fully the teacher is acquainted with the methods of experimental psychology, the better will she understand how to give a lesson."[1] The training of the teacher should enable her to know when to intervene in the child's activities, and, what is more important, when to refrain from intervening. "In the manner of this intervention lies the personal art of the educator."[2]

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[1] p. 89.

As the function of the teacher in the Montessori system is different from that of the teacher in the ordinary school system, being confined mainly to observing the psychic development and to directing the psychic activity of the child, Montessori has substituted for the title "teacher" the term "directress."

Montessori would probably rest her title to fame on the introduction into education of her doctrine of sensory training. The value of this, we believe, she has much overrated. The permanent elements in the sensory training will doubtless be the practical exercises and the exercises subsidiary to the didactic processes. The introduction of a new type of social institution in the form of the House of Childhood is, however, a noteworthy result of the system; but the most characteristic feature of the method itself is its individualism, a consequence of the adoption of the psychological standpoint. Such individualising of instruction the Montessori system shares with the most recent developments in other fields of educational activity, and this will doubtless be a prominent feature of "The Schools of To-Morrow."[3]

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[1] p. 107.

[2] p. 176. Cf. p. 224.

[3] See work by J. and E. Dewey under this title.

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